

Source Water Assessment Report



Public Water Supply: HUTCHINSON, CITY OF

Assessment Areas Include:

98, 99, 100, 101, 102, 103, 104, 105, 106, 107



Kansas Department of Health and Environment
Bureau of Water Watershed Management Section
1000 SW Jackson St., Suite 420
Topeka, KS 66612-1367



Burns & McDonnell
9400 Ward Parkway
Kansas City, MO 64114



Kansas Geological Survey University of Kansas
1930 Constant Ave.
Lawrence, KS 66047

Reports were generated with the Automated Source Water Assessment Tool (ASWAT). Assessments were completed online using ASWAT by hundreds of state employees, public water supply staff, and technical assistant providers throughout the State of Kansas.

Table Of Contents

<u>Report Description</u>	
<u>Assessment Area 98</u>	<u>1.0</u>
<u>Executive Summary</u>	<u>1.1</u>
<u>Potential Sources</u>	<u>1.2</u>
<u>Added Sources</u>	<u>1.3</u>
<u>Potential Contaminants Summary</u>	<u>1.4</u>
<u>Potential Contaminants Listing</u>	<u>1.5</u>
<u>Protection Measures</u>	<u>1.6</u>
<u>Assessment Analysis</u>	<u>1.7</u>
<u>Site Comments</u>	<u>1.8</u>
<u>Added Site Comments</u>	<u>1.9</u>
<u>Analysis Question Comments</u>	<u>1.10</u>
<u>Assessment Area 99</u>	<u>2.0</u>
<u>Executive Summary</u>	<u>2.1</u>
<u>Potential Sources</u>	<u>2.2</u>
<u>Added Sources</u>	<u>2.3</u>
<u>Potential Contaminants Summary</u>	<u>2.4</u>
<u>Potential Contaminants Listing</u>	<u>2.5</u>
<u>Protection Measures</u>	<u>2.6</u>
<u>Assessment Analysis</u>	<u>2.7</u>
<u>Site Comments</u>	<u>2.8</u>
<u>Added Site Comments</u>	<u>2.9</u>
<u>Analysis Question Comments</u>	<u>2.10</u>
<u>Assessment Area 100</u>	<u>3.0</u>
<u>Executive Summary</u>	<u>3.1</u>
<u>Potential Sources</u>	<u>3.2</u>
<u>Added Sources</u>	<u>3.3</u>
<u>Potential Contaminants Summary</u>	<u>3.4</u>
<u>Potential Contaminants Listing</u>	<u>3.5</u>
<u>Protection Measures</u>	<u>3.6</u>
<u>Assessment Analysis</u>	<u>3.7</u>
<u>Site Comments</u>	<u>3.8</u>
<u>Added Site Comments</u>	<u>3.9</u>
<u>Analysis Question Comments</u>	<u>3.10</u>

<u>Assessment Area 101</u>	<u>4.0</u>
<u>Executive Summary</u>	<u>4.1</u>
<u>Potential Sources</u>	<u>4.2</u>
<u>Added Sources</u>	<u>4.3</u>
<u>Potential Contaminants Summary</u>	<u>4.4</u>
<u>Potential Contaminants Listing</u>	<u>4.5</u>
<u>Protection Measures</u>	<u>4.6</u>
<u>Assessment Analysis</u>	<u>4.7</u>
<u>Site Comments</u>	<u>4.8</u>
<u>Added Site Comments</u>	<u>4.9</u>
<u>Analysis Question Comments</u>	<u>4.10</u>
<u>Assessment Area 102</u>	<u>5.0</u>
<u>Executive Summary</u>	<u>5.1</u>
<u>Potential Sources</u>	<u>5.2</u>
<u>Added Sources</u>	<u>5.3</u>
<u>Potential Contaminants Summary</u>	<u>5.4</u>
<u>Potential Contaminants Listing</u>	<u>5.5</u>
<u>Protection Measures</u>	<u>5.6</u>
<u>Assessment Analysis</u>	<u>5.7</u>
<u>Site Comments</u>	<u>5.8</u>
<u>Added Site Comments</u>	<u>5.9</u>
<u>Analysis Question Comments</u>	<u>5.10</u>
<u>Assessment Area 103</u>	<u>6.0</u>
<u>Executive Summary</u>	<u>6.1</u>
<u>Potential Sources</u>	<u>6.2</u>
<u>Added Sources</u>	<u>6.3</u>
<u>Potential Contaminants Summary</u>	<u>6.4</u>
<u>Potential Contaminants Listing</u>	<u>6.5</u>
<u>Protection Measures</u>	<u>6.6</u>
<u>Assessment Analysis</u>	<u>6.7</u>
<u>Site Comments</u>	<u>6.8</u>
<u>Added Site Comments</u>	<u>6.9</u>
<u>Analysis Question Comments</u>	<u>6.10</u>

<u>Assessment Area 104</u>	<u>7.0</u>
<u>Executive Summary</u>	<u>7.1</u>
<u>Potential Sources</u>	<u>7.2</u>
<u>Added Sources</u>	<u>7.3</u>
<u>Potential Contaminants Summary</u>	<u>7.4</u>
<u>Potential Contaminants Listing</u>	<u>7.5</u>
<u>Protection Measures</u>	<u>7.6</u>
<u>Assessment Analysis</u>	<u>7.7</u>
<u>Site Comments</u>	<u>7.8</u>
<u>Added Site Comments</u>	<u>7.9</u>
<u>Analysis Question Comments</u>	<u>7.10</u>
<u>Assessment Area 105</u>	<u>8.0</u>
<u>Executive Summary</u>	<u>8.1</u>
<u>Potential Sources</u>	<u>8.2</u>
<u>Added Sources</u>	<u>8.3</u>
<u>Potential Contaminants Summary</u>	<u>8.4</u>
<u>Potential Contaminants Listing</u>	<u>8.5</u>
<u>Protection Measures</u>	<u>8.6</u>
<u>Assessment Analysis</u>	<u>8.7</u>
<u>Site Comments</u>	<u>8.8</u>
<u>Added Site Comments</u>	<u>8.9</u>
<u>Analysis Question Comments</u>	<u>8.10</u>
<u>Assessment Area 106</u>	<u>9.0</u>
<u>Executive Summary</u>	<u>9.1</u>
<u>Potential Sources</u>	<u>9.2</u>
<u>Added Sources</u>	<u>9.3</u>
<u>Potential Contaminants Summary</u>	<u>9.4</u>
<u>Potential Contaminants Listing</u>	<u>9.5</u>
<u>Protection Measures</u>	<u>9.6</u>
<u>Assessment Analysis</u>	<u>9.7</u>
<u>Site Comments</u>	<u>9.8</u>
<u>Added Site Comments</u>	<u>9.9</u>
<u>Analysis Question Comments</u>	<u>9.10</u>

<u>Assessment Area 107</u>	<u>10.0</u>
<u>Executive Summary</u>	<u>10.1</u>
<u>Potential Sources</u>	<u>10.2</u>
<u>Added Sources</u>	<u>10.3</u>
<u>Potential Contaminants Summary</u>	<u>10.4</u>
<u>Potential Contaminants Listing</u>	<u>10.5</u>
<u>Protection Measures</u>	<u>10.6</u>
<u>Assessment Analysis</u>	<u>10.7</u>
<u>Site Comments</u>	<u>10.8</u>
<u>Added Site Comments</u>	<u>10.9</u>
<u>Analysis Question Comments</u>	<u>10.10</u>

Report Description

Detailed Explanation of Entire Report:

The 1996 amendments to the Safe Drinking Water Act require each state to develop a Source Water Assessment Program (SWAP) and a Source Water Assessment (SWA) for each Public Water Supply (PWS) that treats and distributes raw source water. In Kansas there are 761 public water supplies that require SWAs. A SWA includes a delineation of the source water assessment area, an inventory of potential contaminant sources, and a susceptibility analysis.

A PWS can consist of one or more individual assessment areas that require different assessments. In general, an assessment area is delineated at a two-mile fixed radius for a groundwater well. A surface water intake assessment area is the upstream-drainage area (watershed), inside the state border. Additionally, an assessment area can consist of an individual well, group of wells, an individual surface water intake, or multiple surface water intakes.

After each assessment is completed a report is automatically generated using an Internet-based application called the Automated Source Water Assessment Tool (ASWAT). The individual assessment reports combine to form the entire SWA report for a PWS.

A map of each Assessment Area was also generated with ASWAT. However, for security reasons the maps are not included in this report. To obtain a copy of the map(s), please contact your local PWS.

All PWS reports will be available for viewing and downloading on KDHE's Watershed Management Section website(<http://www.kdhe.state.ks.us/nps>) in 2004.

HUTCHINSON, CITY OF Summary:

AA	Type	Diversion Id
98	Ground water multiple wells	005, 010, 002
99	Ground water multiple wells	019, 017, 021, 023
100	Ground water single well	018
101	Ground water single well	016
102	Ground water single well	015
103	Ground water single well	014

104	Ground water multiple wells	007, 013
105	Ground water single well	020
106	Ground water single well	022
107	Ground water single well	024

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**
Diversion Id's: **005, 010, 002**
Status: **Accepted**
Submit Date: **2002-10-28 16:10:16**

Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

Executive Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**

Susceptibility Likelihood Scores for Assessment Area

Contaminant Category	A	B	B*	C	C*	D
Susceptibility Likelihood Score – SLS	47	52	43	60	48	63
SLS Range	Low	Mid	Low	Mid	Low	Mid

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Susceptibility Likelihood Range

SLS Range	
0–50	Low Susceptibility
51–80	Moderate Susceptibility
81–100	High Susceptibility

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**
Diversion Id's: **005, 010, 002**
Status: **Accepted**
Submit Date: **2002-10-28 16:10:16**

Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100-foot radius around a groundwater well and a 1000-foot radius around a surface water intake. Zone B is a 2000-foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2-mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

Potential Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
200347	Veterinary Services, Specialties	742	B
200763	Veterinary Services, Specialties	742	B
200287	Animal Specialty Services	752	B
200463	Animal Specialty Services	752	B
200483	Animal Specialty Services	752	B
201203	Animal Specialty Services	752	B
200367	Single-family Housing Construction	1521	B
200470	Single-family Housing Construction	1521	B
200475	Single-family Housing Construction	1521	B
201271	Single-family Housing Construction	1521	B
201330	Single-family Housing Construction	1521	B
200616	Highway and Street Construction	1611	B
200353	Newspapers Publishing and Printing	2711	B
200673	Newspapers Publishing and Printing	2711	B
201306	Commercial Printing-Lithographic	2752	B
200608	Commercial Printing NEC	2759	B
201276	Lubricating Oils and Greases Manufacturing	2992	B

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
201281	Steel Pipe and Tubes Manufacturing	3317	B
200413	Signs and Advertising Display Manufacturing	3993	B
200468	Signs and Advertising Display Manufacturing	3993	B
201167	Signs and Advertising Display Manufacturing	3993	B
200379	Farm and Garden Machinery	5083	B
200338	Gasoline Service Station	5541	B
201153	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	B
201179	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	B
200439	Auto Truck Repair Service	7538	B
200651	Auto Truck Repair Service	7538	B
201184	Auto Truck Repair Service	7538	B
200340	Car Wash	7542	B
200487	Car Wash	7542	B
201267	Car Wash	7542	B
200109	Repair Services, Nec	7699	B
200370	Repair Services, Nec	7699	B
201199	Repair Services, Nec	7699	B
201282	Repair Services, Nec	7699	B

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
199827	General Farm, Primarily Crop	191	C
200078	Veterinary Services, Specialties	742	C
202014	Veterinary Services, Specialties	742	C
202152	Veterinary Services, Specialties	742	C
202154	Veterinary Services, Specialties	742	C
199886	Animal Specialty Services	752	C
199889	Animal Specialty Services	752	C
199977	Animal Specialty Services	752	C
200070	Animal Specialty Services	752	C
200269	Animal Specialty Services	752	C
201856	Animal Specialty Services	752	C
202018	Animal Specialty Services	752	C
202253	Animal Specialty Services	752	C
199884	Single-family Housing Construction	1521	C
199987	Single-family Housing Construction	1521	C
200019	Single-family Housing Construction	1521	C
200079	Single-family Housing Construction	1521	C
200086	Single-family Housing Construction	1521	C
200290	Single-family Housing Construction	1521	C
200335	Single-family Housing Construction	1521	C
200534	Single-family Housing Construction	1521	C
200571	Single-family Housing Construction	1521	C
200597	Single-family Housing Construction	1521	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
200605	Single-family Housing Construction	1521	C
200913	Single-family Housing Construction	1521	C
201087	Single-family Housing Construction	1521	C
201526	Single-family Housing Construction	1521	C
201817	Single-family Housing Construction	1521	C
202016	Single-family Housing Construction	1521	C
200108	Nonresidential Construction	1542	C
202191	Nonresidential Construction	1542	C
200594	Highway and Street Construction	1611	C
201013	Highway and Street Construction	1611	C
201351	Highway and Street Construction	1611	C
200860	Meat Packing Plant Manufacturing	2011	C
202169	Sausages and Other Prepared Meats Manufacturing	2013	C
199946	Ice Cream and Frozen Desserts Manufacturing	2024	C
200902	Ice Cream and Frozen Desserts Manufacturing	2024	C
200201	Prepared Feeds For Animals and Fowls	2048	C
200150	Bakery Products Manufacturing	2052	C
200569	Wood Kitchen Cabinets Manufacturing	2434	C
201432	Wood Pallets and Skids Manufacturing	2448	C
200863	Commercial Printing-Lithographic	2752	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
200939	Commercial Printing–Lithographic	2752	C
201235	Commercial Printing–Lithographic	2752	C
201249	Commercial Printing NEC	2759	C
201355	Commercial Printing NEC	2759	C
202190	Paints and Allied Products Manufacturing	2851	C
199947	Plastics products Manufacturing	3089	C
200596	Sheet Metal Work Manufacturing	3444	C
200864	Sheet Metal Work Manufacturing	3444	C
201239	Sheet Metal Work Manufacturing	3444	C
202186	Metal Coating and Allied Services Manufacturing	3479	C
199899	Farm Machinery and Equipment	3523	C
199964	Fluid power cylinders and actuators Manufacturing	3593	C
199962	Machinery, Except Electrical Manufacturing	3599	C
200899	Machinery, Except Electrical Manufacturing	3599	C
200908	Machinery, Except Electrical Manufacturing	3599	C
201895	Machinery, Except Electrical Manufacturing	3599	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
202150	Machinery, Except Electrical Manufacturing	3599	C
202227	Machinery, Except Electrical Manufacturing	3599	C
201970	Motor Vehicles and Car Bodies Manufacturing	3711	C
202187	Truck and Bus Bodies Manufacturing	3713	C
199826	Surgical and Medical Instruments Manufacturing	3841	C
200570	Signs and Advertising Display Manufacturing	3993	C
200603	Signs and Advertising Display Manufacturing	3993	C
200893	Signs and Advertising Display Manufacturing	3993	C
200940	Signs and Advertising Display Manufacturing	3993	C
202158	Manufacturing Industries, nec	3999	C
200046	Local Trucking, without Storage	4212	C
199828	Farm Product Warehousing and Storage	4221	C
199921	Farm Product Warehousing and Storage	4221	C
199924	Farm Product Warehousing and Storage	4221	C
199980	Farm Product Warehousing and Storage	4221	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
200204	Farm Product Warehousing and Storage	4221	C
200210	Farm Product Warehousing and Storage	4221	C
200212	Farm Product Warehousing and Storage	4221	C
200560	Farm Product Warehousing and Storage	4221	C
201010	Farm Product Warehousing and Storage	4221	C
201038	Farm Product Warehousing and Storage	4221	C
200220	Pipeline Terminal	4789	C
202255	Refuse Systems	4953	C
200535	Recreational vehicle sales and repair	5012	C
202188	Recreational vehicle sales and repair	5012	C
200067	Farm and Garden Machinery	5083	C
200567	Farm and Garden Machinery	5083	C
199907	Scrap and Waste Materials	5093	C
199922	Scrap and Waste Materials	5093	C
199976	Scrap and Waste Materials	5093	C
200333	Scrap and Waste Materials	5093	C
200548	Gasoline Service Station	5541	C
201540	Gasoline Service Station	5541	C
202172	Gasoline Service Station	5541	C
200125	Recreational vehicle sales and repair	5561	C
200574	Recreational vehicle sales and repair	5561	C
199943	Mobile Home Park	6515	C
200135	Mobile Home Park	6515	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
200209	Mobile Home Park	6515	C
201067	Mobile Home Park	6515	C
201422	Mobile Home Park	6515	C
201424	Mobile Home Park	6515	C
201426	Mobile Home Park	6515	C
199882	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
199932	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
200532	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
200843	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
200912	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
200952	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
201224	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
201253	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
201457	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
201900	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
202226	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
202228	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
199861	Auto Truck Repair Service	7538	C
199890	Auto Truck Repair Service	7538	C
199911	Auto Truck Repair Service	7538	C
199920	Auto Truck Repair Service	7538	C
199923	Auto Truck Repair Service	7538	C
199939	Auto Truck Repair Service	7538	C
200082	Auto Truck Repair Service	7538	C
200576	Auto Truck Repair Service	7538	C
200585	Auto Truck Repair Service	7538	C
200586	Auto Truck Repair Service	7538	C
200844	Auto Truck Repair Service	7538	C
200868	Auto Truck Repair Service	7538	C
200909	Auto Truck Repair Service	7538	C
200975	Auto Truck Repair Service	7538	C
201222	Auto Truck Repair Service	7538	C
201226	Auto Truck Repair Service	7538	C
201240	Auto Truck Repair Service	7538	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
201345	Auto Truck Repair Service	7538	C
201542	Auto Truck Repair Service	7538	C
202151	Auto Truck Repair Service	7538	C
202160	Auto Truck Repair Service	7538	C
202171	Auto Truck Repair Service	7538	C
202193	Auto Truck Repair Service	7538	C
202249	Auto Truck Repair Service	7538	C
199933	Car Wash	7542	C
200851	Car Wash	7542	C
201543	Car Wash	7542	C
199896	Repair Services, Nec	7699	C
200854	Repair Services, Nec	7699	C
200937	Repair Services, Nec	7699	C
200993	Repair Services, Nec	7699	C
201388	Repair Services, Nec	7699	C
201425	Repair Services, Nec	7699	C
201778	Repair Services, Nec	7699	C
201818	Repair Services, Nec	7699	C
201341	Racing, Including Track Operation	7948	C
199834	Golf Course	7992	C

Regulated Confined Animal Feeding Operations Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3000039	Reno Co Emergency Preparedness	00191	B
3000053	Town Country #70	00309	B
3000663	Pic Quik #7	06792	B
3000770	Bridgeman Oil (zip Trip)	07708	B
3000834	Highway Oil #743	08682	B
3000888	Fina #9479 (t E Oil #17)	09026	B
3000889	T E Oil #16	09028	B
3000905	Hutchinson Water Maintenance	09079	B
3000948	Mel Turner Motors	11388	B
3001042	Culver Property (former C F Auto)	14479	B
3001066	Mid America Maintenance, Hutchinson	15399	B
3001170	Reger Rental Sales	19186	B
3001374	Us Postal Serv, Hutchinson	24227	B
3001779	Coleman American Moving	26865	B
3001790	Harold's Car Care Wash, Former	26916	B
3001995	Town Country #76	27943	B

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3000073	Charlie's 66	00748	C
3000074	Patlyn Oil	00774	C
3000076	Dick Enterprise, Inc.	00786	C
3000241	Independent Oil	02916	C
3000259	Collingwood Grain, Hutchinson	03131	C
3000315	Farmers Coop Elevator Co.	03866	C
3000618	Pic Quik	06584	C
3000631	Kwik Shop	06626	C
3000636	Kwik Shop #764	06647	C
3000662	Pic Quik	06790	C
3000674	T E Oil	06839	C
3000744	Coastal Mart #9106	07202	C
3000762	Golden Plains Health Care Center	07568	C
3000793	Reno Co Automobile	07892	C
3000904	Hutchinson Central Garage	09078	C
3000906	Hutchinson Park Dept	09080	C
3000969	Bridgeman Oil, Hutchinson	12177	C
3000970	Bridgman Oil Co	12178	C
3000997	Conklin Cars	12986	C
3001085	Potter, Everett	15866	C
3001156	Orrins 66	18391	C
3001165	Radke Oil	18780	C
3001252	Whithorn Service Center	22975	C

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3001348	North American Salt	24050	C
3001350	Collins Bus Corp	24061	C
3001351	Krause Plow Corp	24066	C
3001365	Ks State Industrial Ref.	24189	C
3001366	Kansas State Fair	24194	C
3001583	Usd 308, Maintenance	26026	C
3001584	Usd 308, Central Ks Vo-tech	26027	C
3001755	Kdot	26714	C
3001805	Wen's One Convenience	26980	C
3001983	Petron International	27857	C
3002004	Midwest Iron Metal	28039	C
3002007	Safelight Autoglass	28045	C
3002032	1125 N Main Ltd	28204	C
3002195	Hutchinson Correctional Fac	29053	C
3002202	Luminous Neon	29092	C
3002204	Hamilton Roofing	29094	C
3002253	Southern Pacific Trans, Hutchinson	29351	C
3002262	Usd 308, Hutchinson Hs	29367	C
3002347	Upr, Hutchinson	29757	C
3002409	Cargill Salt	40516	C
3002527	Gary's Auto Center	80286	C
3002548	Half Circle Inn	80328	C

Regulated Identified Contaminated Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
7000181	HUTCHINSON NEWS	C207800132	B

Regulated Identified Contaminated Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
7000186	FMGP – HUTCHINSON	C207870012	B
7000189	SAYLOR CLEANERS	C207870351	B
7000183	AMERICAN UNIFORM (25TH AND MAIN) (FORMER)	C207800674	C
7000184	INEEDA – NORTHGATE	C207803027	C
7000185	INEEDA LAUNDRY AND DRY CLEANER(13TH AND MAIN)	C207803034	C
7000190	LOWEN CORP – 4TH LORRAINE	C207870599	C
7000193	129 WEST AVENUE A	C207870809	C
7000195	11TH LORRAINE	C207870829	C
7000198	CARGILL SALT	C207870855	C
7000201	GOLDEN POND	C207871190	C

Regulated Solid Waste Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
5000281	Robert L. Miller	0271–S	C
5000340	Morton Salt	0332–S	C
5000365	Kansas State Industrial Reformatory	0358–S	C
5000388	Cargill Salt	0380–S	C
5000411	Collingwood Grain, Inc.	0402–S	C
5000562	City of Hutchinson	0547–S	C

Regulated Waste Water Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
6000069	TOTAL PETROLEUM–VICKERS SERV. STATION	I–AR49–PO05	C
6000547	HUTCHINSON MILL LLC	I–AR49–CO04	C
6000548	KRAUSE PLOW CORPORATION, INC.	I–AR49–CO10	C
6000551	MEDICAL CENTER, P.A.	I–AR49–CO18	C
6000552	TRINITY UNITED METHODIST CHURCH	I–AR49–CO19	C
6000553	RITCHIE CONSTRUCTION LAGOON NO. 1	I–AR49–NP03	C
6000555	IMC SALT, INC.	I–AR49–PO02	C
6000556	CARGILL SALT	I–AR49–PO08	C
6000569	MORTON SALT	I–AR82–PO01	C
6001101	SOUTH HUTCHINSON MWTP	M–AR82–OO01	C
6001102	SOUTH HUTCHINSON MWTP	M–AR82–OO01	C
6001103	SOUTH HUTCHINSON MWTP	M–AR82–OO01	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**
Diversion Id's: **005, 010, 002**
Status: **Accepted**
Submit Date: **2002-10-28 16:10:16**

Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

Added Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**

Added Potential Site Sources

Source No.	Source Name	SIC ID	Zone
Did Not Add Any Site Sources			

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**
Diversion Id's: **005, 010, 002**
Status: **Accepted**
Submit Date: **2002-10-28 16:10:16**

Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number of sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

Potential Contaminants Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**

Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
54	4	151	32	99	46

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**
Diversion Id's: **005, 010, 002**
Status: **Accepted**
Submit Date: **2002-10-28 16:10:16**

Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiological **B** – Inorganic Compounds **B1** – Eutrophication – Phosphorous
B2 – Sedimentation **B*** – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

Potential Contaminants Listing

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**

Unregulated Identified Site Sources and associated Potential Contaminant Category

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
7538	Auto Truck Repair Service	Inorganics, VOCs	B
"	"	"	D
2052	Bakery Products Manufacturing	BOD,oil and grease, TSS	A
"	"	"	B
7542	Car Wash	Inorganics, VOCs	B
"	"	"	B1
"	"	"	B2
"	"	"	D
3593	Fluid power cylinders and actuators Manufacturing	inorganics, VOCs	B
"	"	"	D
5541	Gasoline Service Station	Inorganics, VOCs	B
"	"	"	D
7992	Golf Course	Fertilizers and pesticides	A
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	C*

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
1611	Highway and Street Construction	Sedimentation	B2
2024	Ice Cream and Frozen Desserts Manufacturing	BOD oil and grease	A
4212	Local Trucking, without Storage	VOCs	D
2992	Lubricating Oils and Greases Manufacturing	Semi volatiles, VOCs	C
"	"	"	D
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	B
"	"	"	D
3999	Manufacturing Industries, nec	inorganics, VOCs	B
"	"	"	D
2011	Meat Packing Plant Manufacturing	BOD, pathogens, Oil and grease	A
"	"	"	B*
3479	Metal Coating and Allied Services Manufacturing	inorganics, VOCs	B
"	"	"	D
6515	Mobile Home Park	Sanitary wastes, Fertilizers	A
"	"	"	B
"	"	"	B1
"	"	"	B*
3711	Motor Vehicles and Car Bodies Manufacturing	inorganics, VOCs	B
"	"	"	D

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
1542	Nonresidential Construction	Sedimentation	B2
2851	Paints and Allied Products Manufacturing	Solvents and other VOCs, metals	B
"	"	"	D
4789	Pipeline Terminal	Inorganics, VOCs	B
"	"	"	D
3089	Plastics products Manufacturing	inorganics, VOCs	B
"	"	"	D
2013	Sausages and Other Prepared Meats Manufacturing	BOD, pathogens, Oil and grease	A
"	"	"	B*
5093	Scrap and Waste Materials	Metals, TSS	B
3444	Sheet Metal Work Manufacturing	Metals and TSS, VOCs and metal etch	B
3993	Signs and Advertising Display Manufacturing	inorganics, VOCs	B
"	"	"	D
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	A
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	C
3317	Steel Pipe and Tubes Manufacturing	Inorganics, metals, VOCs	B

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
3317	Steel Pipe and Tubes Manufacturing	Inorganics, metals, VOCs	D
3841	Surgical and Medical Instruments Manufacturing	inorganics, VOCs	B
"	"	"	D
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	B
"	"	"	D
3713	Truck and Bus Bodies Manufacturing	inorganics, VOCs	B
"	"	"	D
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	A
"	"	"	B
2434	Wood Kitchen Cabinets Manufacturing	TSS, VOCs	B
"	"	"	D
2448	Wood Pallets and Skids Manufacturing	TSS, VOCs	B
"	"	"	D
752	Animal Specialty Services	Sanitary, fertilizers	A
"	"	"	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
2759	Commercial Printing NEC	Inorganics, VOCs, Semi volatiles	B

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
2759	Commercial Printing NEC	Inorganics, VOCs, Semi volatiles	C
"	"	"	D
2752	Commercial Printing–Lithographic	Inorganics, VOCs, Semi volatiles	B
"	"	"	C
"	"	"	D
3523	Farm Machinery and Equipment	inorganics	B
"	"	"	D
4221	Farm Product Warehousing and Storage	TSS, VOCs	B
"	"	"	D
5083	Farm and Garden Machinery	inorganics	B
191	General Farm, Primarily Crop	fertilizers, Pesticides	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	C*
2711	Newspapers Publishing and Printing	Inorganics, VOCs, Semi volatiles	B
"	"	"	C
"	"	"	D
2048	Prepared Feeds For Animals and Fowls	Sanitary, Nitrates, phosphorous and pesticides	A

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
2048	Prepared Feeds For Animals and Fowls	Sanitary, Nitrates, phosphorous and pesticides	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	C*
7948	Racing, Including Track Operation		NA
5012	Recreational vehicle sales and repair	Inorganics	B
5561	Recreational vehicle sales and repair	Inorganics	B
4953	Refuse Systems	ALL	A
"	"	"	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	C
"	"	"	C*
"	"	"	D
7699	Repair Services, Nec	inorganics	B

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**
Diversion Id's: **005, 010, 002**
Status: **Accepted**
Submit Date: **2002-10-28 16:10:16**

Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

Protection Measures

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
7538	Auto Truck Repair Service	Inorganics, VOCs	Discharge to POTW. Manage oil products and used oil so that it is not in contact with water	40 CFR 442 and
2052	Bakery Products Manufacturing	BOD,oil and grease, TSS	Wastewater pretreatment and/or discharge to a POTW. Grounds maintenance and cleanup.	40 CFR 122 and State or federal Storm water pollution prevention regulations
7542	Car Wash	Inorganics, VOCs	Install and maintain sediment and grease traps where appropriate	40 CFR 442
3593	Fluid power cylinders and actuators Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
5541	Gasoline Service Station	Inorganics, VOCs	Maintain area to minimize fuel contamination	NA
7992	Golf Course	Fertilizers and pesticides	Proper application of fertilizers and pesticides. Proper cleaning of equipment and disposal of chemicals.	KDHE, KAR 28-16

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
1611	Highway and Street Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
2024	Ice Cream and Frozen Desserts Manufacturing	BOD oil and grease	Wastewater pretreatment and/or discharge to a POTW	40 CFR 405 State or federal Storm water pollution prevention regulations
4212	Local Trucking, without Storage	VOCs	Discharge to a POTW	State or federal Storm water pollution prevention regulations
2992	Lubricating Oils and Greases Manufacturing	Semi volatiles, VOCs	Control storm water runoff to minimize contact with product or wastes. Pre-treat wastewater prior to discharge (direct or POTW)	State or federal Storm water pollution prevention regulations
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
3999	Manufacturing Industries, nec	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
2011	Meat Packing Plant Manufacturing	BOD, pathogens, Oil and grease	Wastewater pretreatment and/or discharge to a POTW	40CFR 432 and State or federal Storm water pollution prevention regulations
3479	Metal Coating and Allied Services Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	40 CFR 433 and State or federal Storm water pollution prevention regulations
6515	Mobile Home Park	Sanitary wastes, Fertilizers	Discharge to POTW. Minimize use of lawn chemicals	KAR 28–5
3711	Motor Vehicles and Car Bodies Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
1542	Nonresidential Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
2851	Paints and Allied Products Manufacturing	Solvents and other VOCs, metals	Discharge process water to POTW. Recycle where possible and manage solid waste properly	40 CFR 446 and State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
4789	Pipeline Terminal	Inorganics, VOCs	Maintain secondary containment for fuel storage and fueling areas. Maintain and inspect. Effect repairs promptly	NA
3089	Plastics products Manufacturing	inorganics, VOCs	Pre-treat wastewater prior to discharge. Minimize outdoor storage and control storm water runoff.	40 CFR 463 and State or federal Storm water pollution prevention regulations
2013	Sausages and Other Prepared Meats Manufacturing	BOD, pathogens, Oil and grease	Wastewater pretreatment and/or discharge to a POTW	40 CFR 432 and State or federal Storm water pollution prevention regulations
5093	Scrap and Waste Materials	Metals, TSS	Minimize contact with storm water	State or federal Storm water pollution prevention regulations
3444	Sheet Metal Work Manufacturing	Metals and TSS, VOCs and metal etch	Minimize outdoor storage and control storm water runoff. Pre-treat process wastewater prior to discharge to POTW	40 CFR 464 and State or federal Storm water pollution prevention regulations
3993	Signs and Advertising Display Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	40 CFR 459 and State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers	KAR 28-48, KDHE, KDEM
3317	Steel Pipe and Tubes Manufacturing	Inorganics, metals, VOCs	Minimize outdoor storage and control storm water runoff. Pre-treat process wastewater prior to discharge to POTW	40 CFR 464 and State or federal Storm water pollution prevention regulations
3841	Surgical and Medical Instruments Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	Discharge to POTW. Recycle where appropriate. Properly maintain oil product and waste. Manage paint and solvent wastes properly	NA
3713	Truck and Bus Bodies Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	40 CFR 464 and State or federal Storm water pollution prevention regulations
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	Discharge to POT	NA

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
2434	Wood Kitchen Cabinets Manufacturing	TSS, VOCs	Discharge of process waters to POTW. Minimize outdoor storage.	State or federal Storm water pollution prevention regulations
2448	Wood Pallets and Skids Manufacturing	TSS, VOCs	Discharge of process waters to POTW. Minimize outdoor storage.	State or federal Storm water pollution prevention regulations
752	Animal Specialty Services	Sanitary, fertilizers	Collect and treat wastes.	NA
2759	Commercial Printing NEC	Inorganics, VOCs, Semi volatiles	Recycle chemicals where possible. Discharge to POTW	40 CFR 459 and State or federal Storm water pollution prevention regulations
2752	Commercial Printing–Lithographic	Inorganics, VOCs, Semi volatiles	Recycle chemicals where possible. Discharge to POTW	40 CFR 459 and State or federal Storm water pollution prevention regulations
3523	Farm Machinery and Equipment	inorganics	Discharge to POTW	State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
4221	Farm Product Warehousing and Storage	TSS, VOCs	Keep the area clean of grain. Use grease traps.	State or federal Storm water pollution prevention regulations
5083	Farm and Garden Machinery	inorganics	Discharge to POTW	NA
191	General Farm, Primarily Crop	fertilizers, Pesticides	Maintain good erosion control practices and minimize the use of chemicals	NA
2711	Newspapers Publishing and Printing	Inorganics, VOCs, Semi volatiles	Recycle chemicals where possible. Discharge to POTW	40 CFR 459 and State or federal Storm water pollution prevention regulations
2048	Prepared Feeds For Animals and Fowls	Sanitary, Nitrates, phosphorous and pesticides	Maintain animal feeding areas and feed storage areas to minimize contact with storm water. Collect and treat process wastes.	40 CFR 412 and State or federal Storm water pollution prevention regulations
7948	Racing, Including Track Operation	NA	Discharge to POTW. Minimize use of lawn chemicals. Use good erosion control practices	NA

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
5012	Recreational vehicle sales and repair	Inorganics	Discharge to a POTW. Store oils and lubricants properly	NA
5561	Recreational vehicle sales and repair	Inorganics	Discharge to a POTW. Store oils and lubricants properly	Discharge to a POTW. Store oils and lubricants properly
4953	Refuse Systems	ALL	Store wastes properly in order to minimize contact with storm water.	Maintain the lagoon or storage vessel properly. Control storm water run on and runoff to minimize contamination of storm water
7699	Repair Services, Nec	inorganics	Discharge to POTW	NA

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**
Diversion Id's: **005, 010, 002**
Status: **Accepted**
Submit Date: **2002-10-28 16:10:16**

Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

Assessment Analysis

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**

Ground Water Multiple Wells Analysis

A – Microbiological **B** – Inorganic Compounds
B* – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

No.	Question	Response	A	B	B*	C	C*	D
1	Is any well under the influence of surface water?	No	0	0	0	0	0	0
2	Do all PWS wells meet KS PWS water well construction standards?	Yes	0	0	0	0	0	0
3	Is any well less than 30 feet deep?	No	0	0	0	0	0	0
4	Is gravel pack within 20 feet of any well surface?	No	0	0	0	0	0	0
5	Does a PWS own or control all the areas around the wells?	No	1	1	1	1	1	1
6	Does Zone B consist entirely of native grass?	No	2	2	2	2	2	2
7	Is there a contaminated well in Zone B?	No	0	0	0	0	0	0
8	Is a class V UIC well present?	No	0	0	0	0	0	0
9	Are any commercial, industrial, or urban areas present in Zone B?	Yes	1	1	1	1	1	1
10	Does each industrial/commercial site and urban area have a water quality protection plan in place?	No	1	1	1	1	1	1
11	Are any non-farm home sites present in Zone B?	Yes	1	0	1	0	1	0
12	Do all the non-farm home sites have a water quality protection plan?	No	1	0	1	0	1	0
13	Are any farmsteads present in Zone B?	No	0	0	0	0	0	0
14	Do all farmsteads have a water quality protection plan?	Yes	0	0	0	0	0	0
15	Is there grazing livestock in Zone B?	No	0	0	0	0	0	0
16	Have all livestock producers implemented water quality protection measures?	Yes	0	0	0	0	0	0
17	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0

No.	Question	Response	A	B	B*	C	C*	D
18	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
19	Is there corn or grain sorghum production in Zone B?	No	0	0	0	0	0	0
20	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
21	Are any orchards present in Zone B?	No	0	0	0	0	0	0
22	Are orchard nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
23	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	No	0	0	0	0	0	0
24	Is there a railroad or major highway in Zone B or C?	Yes	0	1	1	1	1	1
25	Is there oil production in Zone B or C?	Yes	0	1	0	1	0	1
26	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
27	Is an irrigation well located in Zone B or C?	Yes	0	1	1	1	1	1
28	Is a wastewater treatment facility in Zone B or C?	Yes	1	1	1	1	1	1
29	Is a solid waste landfill in Zone B or C?	Yes	1	1	1	1	1	1
30	Are there unplugged, abandoned water wells present in Zone C?	Yes	2	1	1	1	1	1
31	Are any commercial, industrial, or urban area present in Zone C?	Yes	1	1	1	1	1	1
32	Does each industrial/commercial site and urban area have a water quality protection plan in place?	No	1	1	1	1	1	1
33	Is there livestock confinement in Zone C?	No	0	0	0	0	0	0
34	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
35	Do all the livestock producers have water quality protection measures in place?	Yes	0	0	0	0	0	0
36	Are cropland nutrient management plans in place?	Yes	0	0	0	0	0	0
37	Are cropland pesticide management plans in place?	Yes	0	0	0	0	0	0
38	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
39	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**
Diversion Id's: **005, 010, 002**
Status: **Accepted**
Submit Date: **2002-10-28 16:10:16**

Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**

Comments for Unregulated Sites

Did Not Receive Any Comments

Comments for Regulated Confined Animal Feeding Operations Sites

Did Not Receive Any Comments

Comments for Regulated Hazardous Waste Sites

Did Not Receive Any Comments

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Bridgeman Oil (zip Trip)	3000770	The site is currently being monitored from a gasoline leak in 1990. No PWS or domestic wells were within .25 miles downgradient of contamination.	Nicole Fisher
Coleman American Moving	3001779	The site is closed from a gasoline leak in 1992. No contamination was detected in the groundwater.	Nicole Fisher

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Culver Property (former C F Auto)	3001042	The site is currently being monitored from a gasoline and diesel spill in 1999. No PWS are within .25 miles of contamination.	Nicole Fisher
Fina #9479 (t E Oil #17)	3000888	The site is currently being monitored from a gasoline and diesel spill in 1993. Groundwater contamination was confirmed. PWS and domestic water supplies were .25 miles downgradient of the contamination site.	Nicole Fisher
Harold's Car Care Wash, Former	3001790	The site is closed from a gasoline leak in 1999. No contamination was detected in the groundwater.	Nicole Fisher
Highway Oil #743	3000834	The site is closed from an estimated gasoline leak of 2000 gallons in 1985. The tank was removed and contamination was estimated to be 200 yards wide. Groundwater contamination was confirmed.	Nicole Fisher
Hutchinson Water Maintenance	3000905	The site is closed from a diesel leak in 1991. The soil was excavated to 18 ft where sand and gravel were encountered. The site was excavated to 27x14x19' deep where no odor or stain remained in soil.	Nicole Fisher
Kwik Shop #764	3000636	The site is closed from a gasoline leak in 1998. No groundwater contamination was suspected.	Nicole Fisher
Mel Turner Motors	3000948	The site is closed from an oil leak in 1994. No groundwater contamination was suspected.	Nicole Fisher
Mid America Maintenance, Hutchinson	3001066	The site is closed from a gasoline leak in 1991. No contamination was detected in the groundwater. The tank was removed.	Nicole Fisher
Pic Quik #7	3000663	The site is currently being monitored from a gasoline leak in 1995. There are several domestic water supplies within .25 miles downgradient of the contamination.	Nicole Fisher
Reger Rental Sales	3001170	The site is closed from a diesel spill in 1990. No groundwater contamination was suspected.	Nicole Fisher
Reno Co Emergency Preparedness	3000039	The site is closed from a fuel oil leak in 1996. No odors were present during the tank removal and no groundwater contamination was suspected.	Nicole Fisher
Safelight Autoglass	3002007	The site is closed from a 1989 spill. No groundwater contamination was suspected.	Nicole Fisher
T E Oil #16	3000889	The site is currently being monitored from a gasoline and diesel leak in 1993. Groundwater contamination was confirmed. PWS was .25 miles downgradient of the contamination site.	Nicole Fisher

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Town Country #70	3000053	The site is currently being monitored from a gasoline leak in 1993. Groundwater contamination was confirmed. PWS was .25 miles downgradient of contamination site.	Nicole Fisher
Town Country #76	3001995	The site is closed from a gasoline leak in 1993. Groundwater contamination was detected. No PWS were within .25 miles of contamination.	Nicole Fisher
Us Postal Serv, Hutchinson	3001374	The site is closed from a gasoline spill in 1991. Groundwater contamination was detected and a monitoring well was placed downgradient of the contamination.	Nicole Fisher
Whithorn Service Center	3001252	The site is active from gasoline contamination in 2000. PWS and domestic water wells are within .25 miles of contamination.	Nicole Fisher

Comments for Regulated Identified Contaminated Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
FMGP – HUTCHINSON	7000186	The site is currently being monitored from a benzene and fuel oil leak from 1996 from an aboveground tank. Groundwater and soil contamination were confirmed; remediation is on-going. For more information please contact: John Cook (785) 296-8986	Nicole Fisher
HUTCHINSON NEWS	7000181	The site is closed from a carbon tetrachloride leak. The PWS #10 is directly down gradient of the contamination and the groundwater was monitored.	Nicole Fisher
SAYLOR CLEANERS	7000189	This site was contaminated with tetrachloroethylene in 1997 from a local dry cleaner company. Groundwater contamination was confirmed and the site was placed under annual monitoring. For more information please contact: Robert Jurgens (785) 291-3250	Nicole Fisher

Comments for Regulated Solid Waste Sites

Did Not Receive Any Comments

Comments for Regulated Waste Water Sites

Did Not Receive Any Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**
Diversion Id's: **005, 010, 002**
Status: **Accepted**
Submit Date: **2002-10-28 16:10:16**

Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

Added Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**

Comments for Added Contaminant Sites

Added Contaminant Site Name	Site No.	Site Comments	Author
Did Not Receive Any Comments			

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**
Diversion Id's: **005, 010, 002**
Status: **Accepted**
Submit Date: **2002-10-28 16:10:16**

Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

Analysis Question Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **98**

Comments for Analysis Questions

Analysis Question	Question Comments	Author
Are cropland nutrient management plans in place?	The landowner will be required to follow all the requirements of the Nutrient/Pesticide Management Plan for the acres they enroll for a period of 3 years. This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
N/A or Unknown	The city has 20 wells of which 16 are active. The inactive wells are kept on standby in case of an emergency and are exercised regularly.	Nicole Fisher

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**
Diversion Id's: **019, 017, 021, 023**
Status: **Accepted**
Submit Date: **2002-10-28 16:14:37**

Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

Executive Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**

Susceptibility Likelihood Scores for Assessment Area

Contaminant Category	A	B	B*	C	C*	D
Susceptibility Likelihood Score – SLS	69	66	66	72	62	71
SLS Range	Mid	Mid	Mid	Mid	Mid	Mid

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Susceptibility Likelihood Range

SLS Range	
0–50	Low Susceptibility
51–80	Moderate Susceptibility
81–100	High Susceptibility

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**
Diversion Id's: **019, 017, 021, 023**
Status: **Accepted**
Submit Date: **2002-10-28 16:14:37**

Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100-foot radius around a groundwater well and a 1000-foot radius around a surface water intake. Zone B is a 2000-foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2-mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

Potential Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
201771	Single-family Housing Construction	1521	B
200078	Veterinary Services, Specialties	742	C
199886	Animal Specialty Services	752	C
199889	Animal Specialty Services	752	C
201856	Animal Specialty Services	752	C
202143	Animal Specialty Services	752	C
199884	Single-family Housing Construction	1521	C
200079	Single-family Housing Construction	1521	C
200534	Single-family Housing Construction	1521	C
200571	Single-family Housing Construction	1521	C
201817	Single-family Housing Construction	1521	C
202135	Nonresidential Construction	1542	C
200569	Wood Kitchen Cabinets Manufacturing	2434	C
202144	Plastics products Manufacturing	3089	C
200099	Plating and Polishing Manufacturing	3471	C
201895	Machinery, Except Electrical Manufacturing	3599	C
200570	Signs and Advertising Display Manufacturing	3993	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
200560	Farm Product Warehousing and Storage	4221	C
200535	Recreational vehicle sales and repair	5012	C
200567	Farm and Garden Machinery	5083	C
200333	Scrap and Waste Materials	5093	C
200548	Gasoline Service Station	5541	C
200125	Recreational vehicle sales and repair	5561	C
200574	Recreational vehicle sales and repair	5561	C
199882	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
200532	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
201900	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
199861	Auto Truck Repair Service	7538	C
199890	Auto Truck Repair Service	7538	C
200082	Auto Truck Repair Service	7538	C
199896	Repair Services, Nec	7699	C
201778	Repair Services, Nec	7699	C
201818	Repair Services, Nec	7699	C

Regulated Confined Animal Feeding Operations Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
2001331	Stroberg Land Cattle	A-ARRN-BA09	C

Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3002123	General Store Of Westborough	28711	B
3000074	Patlyn Oil	00774	C
3000315	Farmers Coop Elevator Co.	03866	C
3000618	Pic Quik	06584	C
3000636	Kwik Shop #764	06647	C
3001252	Whithorn Service Center	22975	C
3001755	Kdot	26714	C
3002007	Safelight Autoglass	28045	C
3002199	Danny's Ok Serv	29067	C
3002202	Luminous Neon	29092	C

Regulated Identified Contaminated Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
7000201	GOLDEN POND	C207871190	C

Regulated Solid Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Waste Water Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
6000550	WESLEY TOWERS	I-AR49-CO17	C
6000552	TRINITY UNITED METHODIST CHURCH	I-AR49-CO19	C
6001133	WILLOWBROOK, CITY OF	M-AR95-OO01	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**
Diversion Id's: **019, 017, 021, 023**
Status: **Accepted**
Submit Date: **2002-10-28 16:14:37**

Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

Added Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**

Added Potential Site Sources

Source No.	Source Name	SIC ID	Zone
9000182	dryland cropland	111	B
9000178	Airstrip	4582	B
9000176	pipelines	4600	B
9000179	Salvage Yard	10015	C
9001615	Groundwater pit	10079	C
9001616	Groundwater pit	10079	C
9000177	private dump	10090	C
9000180	dryland cropland	111	C
9000203	Golf Course	7992	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**
Diversion Id's: **019, 017, 021, 023**
Status: **Accepted**
Submit Date: **2002-10-28 16:14:37**

Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number of sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

Potential Contaminants Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**

Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
11	0	26	6	13	10

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**
Diversion Id's: **019, 017, 021, 023**
Status: **Accepted**
Submit Date: **2002-10-28 16:14:37**

Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiological	B – Inorganic Compounds	B1 – Eutrophication – Phosphorous
B2 – Sedimentation	B* – Nitrates	C – Synthetic Organic Compounds
C* – Pesticides	D – Volatile Organic Compounds	

Potential Contaminants Listing

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**

Unregulated Identified Site Sources and associated Potential Contaminant Category

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
7538	Auto Truck Repair Service	Inorganics, VOCs	B
"	"	"	D
5541	Gasoline Service Station	Inorganics, VOCs	B
"	"	"	D
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	B
"	"	"	D
1542	Nonresidential Construction	Sedimentation	B2
3089	Plastics products Manufacturing	inorganics, VOCs	B
"	"	"	D
3471	Plating and Polishing Manufacturing	Inorganics, metals, VOCs and metal etch	B
"	"	"	D
5093	Scrap and Waste Materials	Metals, TSS	B
3993	Signs and Advertising Display Manufacturing	inorganics, VOCs	B
"	"	"	D
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	A
"	"	"	B1
"	"	"	B2

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	B*
"	"	"	C
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	B
"	"	"	D
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	A
"	"	"	B
2434	Wood Kitchen Cabinets Manufacturing	TSS, VOCs	B
"	"	"	D
752	Animal Specialty Services	Sanitary, fertilizers	A
"	"	"	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
4221	Farm Product Warehousing and Storage	TSS, VOCs	B
"	"	"	D
5083	Farm and Garden Machinery	inorganics	B
5012	Recreational vehicle sales and repair	Inorganics	B
5561	Recreational vehicle sales and repair	Inorganics	B
7699	Repair Services, Nec	inorganics	B

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**
Diversion Id's: **019, 017, 021, 023**
Status: **Accepted**
Submit Date: **2002-10-28 16:14:37**

Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

Protection Measures

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
7538	Auto Truck Repair Service	Inorganics, VOCs	Discharge to POTW. Manage oil products and used oil so that it is not in contact with water	40 CFR 442 and
5541	Gasoline Service Station	Inorganics, VOCs	Maintain area to minimize fuel contamination	NA
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
1542	Nonresidential Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
3089	Plastics products Manufacturing	inorganics, VOCs	Pre–treat wastewater prior to discharge. Minimize outdoor storage and control storm water runoff.	40 CFR 463 and State or federal Storm water pollution prevention regulations
3471	Plating and Polishing Manufacturing	Inorganics, metals, VOCs and metal etch	Minimize outdoor storage and control storm water runoff. Pre–treat process wastewater prior to discharge to POTW	40 CFR 413 and State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
5093	Scrap and Waste Materials	Metals, TSS	Minimize contact with storm water	State or federal Storm water pollution prevention regulations
3993	Signs and Advertising Display Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	40 CFR 459 and State or federal Storm water pollution prevention regulations
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers	KAR 28–48, KDHE, KDEM
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	Discharge to POTW. Recycle where appropriate. Properly maintain oil product and waste. Manage paint and solvent wastes properly	NA
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	Discharge to POT	NA
2434	Wood Kitchen Cabinets Manufacturing	TSS, VOCs	Discharge of process waters to POTW. Minimize outdoor storage.	State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
752	Animal Specialty Services	Sanitary, fertilizers	Collect and treat wastes.	NA
4221	Farm Product Warehousing and Storage	TSS, VOCs	Keep the area clean of grain. Use grease traps.	State or federal Storm water pollution prevention regulations
5083	Farm and Garden Machinery	inorganics	Discharge to POTW	NA
5012	Recreational vehicle sales and repair	Inorganics	Discharge to a POTW. Store oils and lubricants properly	NA
5561	Recreational vehicle sales and repair	Inorganics	Discharge to a POTW. Store oils and lubricants properly	Discharge to a POTW. Store oils and lubricants properly
7699	Repair Services, Nec	inorganics	Discharge to POTW	NA

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**
Diversion Id's: **019, 017, 021, 023**
Status: **Accepted**
Submit Date: **2002-10-28 16:14:37**

Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

Assessment Analysis

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**

Ground Water Multiple Wells Analysis

A – Microbiological **B** – Inorganic Compounds
B* – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

No.	Question	Response	A	B	B*	C	C*	D
1	Is any well under the influence of surface water?	No	0	0	0	0	0	0
2	Do all PWS wells meet KS PWS water well construction standards?	Yes	0	0	0	0	0	0
3	Is any well less than 30 feet deep?	No	0	0	0	0	0	0
4	Is gravel pack within 20 feet of any well surface?	No	0	0	0	0	0	0
5	Does a PWS own or control all the areas around the wells?	No	1	1	1	1	1	1
6	Does Zone B consist entirely of native grass?	No	2	2	2	2	2	2
7	Is there a contaminated well in Zone B?	No	0	0	0	0	0	0
8	Is a class V UIC well present?	No	0	0	0	0	0	0
9	Are any commercial, industrial, or urban areas present in Zone B?	Yes	1	1	1	1	1	1
10	Does each industrial/commercial site and urban area have a water quality protection plan in place?	No	1	1	1	1	1	1
11	Are any non-farm home sites present in Zone B?	Yes	1	0	1	0	1	0
12	Do all the non-farm home sites have a water quality protection plan?	No	1	0	1	0	1	0
13	Are any farmsteads present in Zone B?	Yes	1	1	1	1	1	1
14	Do all farmsteads have a water quality protection plan?	No	1	1	1	1	1	1
15	Is there grazing livestock in Zone B?	Yes	1	0	1	0	0	0
16	Have all livestock producers implemented water quality protection measures?	No	1	0	1	0	0	0
17	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0

No.	Question	Response	A	B	B*	C	C*	D
18	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
19	Is there corn or grain sorghum production in Zone B?	Yes	0	0	1	0	1	0
20	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	No	0	0	1	0	1	0
21	Are any orchards present in Zone B?	No	0	0	0	0	0	0
22	Are orchard nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
23	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	Yes	1	1	1	0	0	0
24	Is there a railroad or major highway in Zone B or C?	Yes	0	1	1	1	1	1
25	Is there oil production in Zone B or C?	Yes	0	1	0	1	0	1
26	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
27	Is an irrigation well located in Zone B or C?	Yes	0	1	1	1	1	1
28	Is a wastewater treatment facility in Zone B or C?	Yes	1	1	1	1	1	1
29	Is a solid waste landfill in Zone B or C?	Yes	1	1	1	1	1	1
30	Are there unplugged, abandoned water wells present in Zone C?	Yes	2	1	1	1	1	1
31	Are any commercial, industrial, or urban area present in Zone C?	Yes	1	1	1	1	1	1
32	Does each industrial/commercial site and urban area have a water quality protection plan in place?	No	1	1	1	1	1	1
33	Is there livestock confinement in Zone C?	Yes	1	1	1	1	1	0
34	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
35	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
36	Are cropland nutrient management plans in place?	Yes	0	0	0	0	0	0
37	Are cropland pesticide management plans in place?	Yes	0	0	0	0	0	0
38	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
39	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**
Diversion Id's: **019, 017, 021, 023**
Status: **Accepted**
Submit Date: **2002-10-28 16:14:37**

Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**

Assessment Area: **99**

Comments for Unregulated Sites

Did Not Receive Any Comments

Comments for Regulated Confined Animal Feeding Operations Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Stroberg Land Cattle	2001331	This cattle livestock facility has no water quality protection plans.	Nicole Fisher

Comments for Regulated Hazardous Waste Sites

Did Not Receive Any Comments

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
General Store Of Westborough	3002123	The site is currently being monitored from a gasoline spill in 1994. Groundwater contamination suspected.	Nicole Fisher

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Kwik Shop #764	3000636	The site is closed from a gasoline leak in 1998. No groundwater contamination was suspected.	Nicole Fisher
Safelight Autoglass	3002007	The site is closed from a 1989 spill. No groundwater contamination was suspected.	Nicole Fisher
Whithorn Service Center	3001252	The site is active from gasoline contamination in 2000. PWS and domestic water wells are within .25 miles of contamination.	Nicole Fisher

Comments for Regulated Identified Contaminated Sites

Did Not Receive Any Comments

Comments for Regulated Solid Waste Sites

Did Not Receive Any Comments

Comments for Regulated Waste Water Sites

Did Not Receive Any Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**
Diversion Id's: **019, 017, 021, 023**
Status: **Accepted**
Submit Date: **2002-10-28 16:14:37**

Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

Added Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**

Comments for Added Contaminant Sites

Added Contaminant Site Name	Site No.	Site Comments	Author
Airstrip	9000178	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
Golf Course	9000203	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
Groundwater pit	9001615	Large Groundwater pit that poses a direct contamination route to the groundwater	Peggy Holloway
Groundwater pit	9001616	Large Groundwater pit that poses a direct contamination route to the groundwater	Peggy Holloway
Salvage Yard	9000179	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000180	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000182	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
pipelines	9000176	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
private dump	9000177	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**
Diversion Id's: **019, 017, 021, 023**
Status: **Accepted**
Submit Date: **2002-10-28 16:14:37**

Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

Analysis Question Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **99**

Comments for Analysis Questions

Analysis Question	Question Comments	Author
Did Not Receive Any Comments		

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**
Diversion Id's: **018**
Status: **Accepted**
Submit Date: **2002-10-28 16:20:54**

Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

Executive Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**

Susceptibility Likelihood Scores for Assessment Area

Contaminant Category	A	B	B*	C	C*	D
Susceptibility Likelihood Score – SLS	50	45	51	48	45	46
SLS Range	Low	Low	Low	Low	Low	Low

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Susceptibility Likelihood Range

SLS Range	
0–50	Low Susceptibility
51–80	Moderate Susceptibility
81–100	High Susceptibility

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**
Diversion Id's: **018**
Status: **Accepted**
Submit Date: **2002-10-28 16:20:54**

Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100-foot radius around a groundwater well and a 1000-foot radius around a surface water intake. Zone B is a 2000-foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2-mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

Potential Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
202143	Animal Specialty Services	752	C
201771	Single-family Housing Construction	1521	C
201817	Single-family Housing Construction	1521	C
202135	Nonresidential Construction	1542	C
202144	Plastics products Manufacturing	3089	C
202136	Sporting and Recreational Camps	7032	C
201778	Repair Services, Nec	7699	C

Regulated Confined Animal Feeding Operations Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
2001331	Stroberg Land Cattle	A-ARRN-BA09	C

Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3002123	General Store Of Westborough	28711	C

Regulated Identified Contaminated Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Solid Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Waste Water Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
6000550	WESLEY TOWERS	I-AR49-CO17	C
6001133	WILLOWBROOK, CITY OF	M-AR95-OO01	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**
Diversion Id's: **018**
Status: **Accepted**
Submit Date: **2002-10-28 16:20:54**

Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

Added Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**

Added Potential Site Sources

Source No.	Source Name	SIC ID	Zone
9000182	dryland cropland	111	B
9000178	Airstrip	4582	B
9000176	pipelines	4600	B
9000179	Salvage Yard	10015	C
9001615	Groundwater pit	10079	C
9001616	Groundwater pit	10079	C
9000177	private dump	10090	C
9000180	dryland cropland	111	C
9000181	dryland cropland	111	C
9000203	Golf Course	7992	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**
Diversion Id's: **018**
Status: **Accepted**
Submit Date: **2002-10-28 16:20:54**

Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number of sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

Potential Contaminants Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**

Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
3	0	3	2	1	3

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**
Diversion Id's: **018**
Status: **Accepted**
Submit Date: **2002-10-28 16:20:54**

Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiological **B** – Inorganic Compounds **B1** – Eutrophication – Phosphorous
B2 – Sedimentation **B*** – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

Potential Contaminants Listing

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**

Unregulated Identified Site Sources and associated Potential Contaminant Category

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
1542	Nonresidential Construction	Sedimentation	B2
3089	Plastics products Manufacturing	inorganics, VOCs	B
"	"	"	D
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	A
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	C
752	Animal Specialty Services	Sanitary, fertilizers	A
"	"	"	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
7699	Repair Services, Nec	inorganics	B

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**
Diversion Id's: **018**
Status: **Accepted**
Submit Date: **2002-10-28 16:20:54**

Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

Protection Measures

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
1542	Nonresidential Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
3089	Plastics products Manufacturing	inorganics, VOCs	Pre–treat wastewater prior to discharge. Minimize outdoor storage and control storm water runoff.	40 CFR 463 and State or federal Storm water pollution prevention regulations
1521	Single–family Housing Construction	Oil, Paint, Pesticides, Fertilizers	Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers	KAR 28–48, KDHE, KDEM
7032	Sporting and Recreational Camps	sanitary, fertilizers, pesticides	Discharge to POTW. Minimize use of lawn chemicals	KAR 28–5
752	Animal Specialty Services	Sanitary, fertilizers	Collect and treat wastes.	NA
7699	Repair Services, Nec	inorganics	Discharge to POTW	NA

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**
Diversion Id's: **018**
Status: **Accepted**
Submit Date: **2002-10-28 16:20:54**

Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

Assessment Analysis

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**

Ground Water Single Well Analysis

A – Microbiological **B** – Inorganic Compounds
B* – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

No.	Question	Response	A	B	B*	C	C*	D
1	Is the well under the influence of surface water?	No	0	0	0	0	0	0
2	Does the well meet KS water well construction standards?	Yes	0	0	0	0	0	0
3	Is the depth of the well less than 30 feet?	No	0	0	0	0	0	0
4	Are there unplugged, abandoned water wells present in Zone A?	No	0	0	0	0	0	0
5	Is there gravel pack within 20 feet of the surface?	No	0	0	0	0	0	0
6	Does a PWS own or control Zone A?	Yes	0	0	0	0	0	0
7	Does Zone A consist entirely of native grass?	Yes	0	0	0	0	0	0
8	Is there a contaminated well in the Zone A?	No	0	0	0	0	0	0
9	Is a class V UIC well present?	No	0	0	0	0	0	0
10	Are any commercial, industrial, or urban areas present in Zone B?	No	0	0	0	0	0	0
11	Does each industrial/commercial site and urban area have a water quality protection plan in place?	Yes	0	0	0	0	0	0
12	Are any non-farm home sites present in Zone B?	Yes	1	0	1	0	1	0
13	Do all the non-farm home sites have a water quality protection plan?	No	1	0	1	0	1	0
14	Are any farmsteads present in Zone B?	Yes	1	1	1	1	1	1
15	Do all farmsteads have a water quality protection plan?	No	1	1	1	1	1	1
16	Does Zone B consist entirely of native grass?	No	1	1	1	1	1	1
17	Is there grazing livestock in Zone B?	Yes	1	0	1	0	0	0

No.	Question	Response	A	B	B*	C	C*	D
18	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
19	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0
20	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
21	Is there corn or grain sorghum production in Zone B?	Yes	0	0	1	0	1	0
22	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	No	0	0	1	0	1	0
23	Are any orchards present in Zone B?	No	0	0	0	0	0	0
24	Are orchard nutrient and pesticide plans in use for each site?	Yes	0	0	0	0	0	0
25	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	Yes	1	1	1	0	0	0
26	Is there a railroad or major highway in Zone B or C?	Yes	0	1	1	1	1	1
27	Is there oil production in Zone B or C?	Yes	0	1	0	1	0	1
28	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
29	Is an irrigation well located in Zone B or C?	Yes	0	1	1	1	1	1
30	Is a wastewater treatment facility in Zone B or C?	Yes	1	1	1	1	1	1
31	Is a solid waste landfill in Zone B or C?	No	0	0	0	0	0	0
32	Are there unplugged, abandoned water wells present in Zone B or C?	Yes	1	0	0	0	0	0
33	Are any commercial, industrial, or urban areas present in Zone C?	Yes	1	1	1	1	1	1
34	Are water quality protection plans in use for each site/area?	No	1	1	1	1	1	1
35	Is there livestock confinement in Zone C?	Yes	1	1	1	1	1	0
36	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
37	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
38	Are cropland nutrient management plans in place?	Yes	0	0	0	0	0	0
39	Are cropland pesticide management plans in place?	Yes	0	0	0	0	0	0
40	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
41	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**
Diversion Id's: **018**
Status: **Accepted**
Submit Date: **2002-10-28 16:20:54**

Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**

Assessment Area: **100**

Comments for Unregulated Sites

Did Not Receive Any Comments

Comments for Regulated Confined Animal Feeding Operations Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Stroberg Land Cattle	2001331	This cattle livestock facility has no water quality protection plans.	Nicole Fisher

Comments for Regulated Hazardous Waste Sites

Did Not Receive Any Comments

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
General Store Of Westborough	3002123	The site is currently being monitored from a gasoline spill in 1994. Groundwater contamination suspected.	Nicole Fisher

Comments for Regulated Identified Contaminated Sites

Did Not Receive Any Comments

Comments for Regulated Solid Waste Sites

Did Not Receive Any Comments

Comments for Regulated Waste Water Sites

Did Not Receive Any Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**
Diversion Id's: **018**
Status: **Accepted**
Submit Date: **2002-10-28 16:20:54**

Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

Added Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**

Comments for Added Contaminant Sites

Added Contaminant Site Name	Site No.	Site Comments	Author
Airstrip	9000178	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
Golf Course	9000203	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
Groundwater pit	9001615	Large Groundwater pit that poses a direct contamination route to the groundwater	Peggy Holloway
Groundwater pit	9001616	Large Groundwater pit that poses a direct contamination route to the groundwater	Peggy Holloway
Salvage Yard	9000179	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000180	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000181	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000182	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
pipelines	9000176	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
private dump	9000177	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**
Diversion Id's: **018**
Status: **Accepted**
Submit Date: **2002-10-28 16:20:54**

Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

Analysis Question Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **100**

Comments for Analysis Questions

Analysis Question	Question Comments	Author
N/A or Unknown	The majority of wells have an elevated level of sodium.	Nicole Fisher

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**
Diversion Id's: **016**
Status: **Accepted**
Submit Date: **2002-10-28 16:31:14**

Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

Executive Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**

Susceptibility Likelihood Scores for Assessment Area

Contaminant Category	A	B	B*	C	C*	D
Susceptibility Likelihood Score – SLS	44	38	45	44	42	42
SLS Range	Low	Low	Low	Low	Low	Low

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Susceptibility Likelihood Range

SLS Range	
0–50	Low Susceptibility
51–80	Moderate Susceptibility
81–100	High Susceptibility

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**
Diversion Id's: **016**
Status: **Accepted**
Submit Date: **2002-10-28 16:31:14**

Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100-foot radius around a groundwater well and a 1000-foot radius around a surface water intake. Zone B is a 2000-foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2-mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

Potential Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
159443	Animal Specialty Services	752	C
159450	Animal Specialty Services	752	C
159244	Single-family Housing Construction	1521	C
159245	Single-family Housing Construction	1521	C
159434	Nonresidential Construction	1542	C
159439	Nonresidential Construction	1542	C
159459	Highway and Street Construction	1611	C
159365	Newspapers Publishing and Printing	2711	C
159458	Sheet Metal Work Manufacturing	3444	C
159200	Machinery, Except Electrical Manufacturing	3599	C
159305	Local Trucking, without Storage	4212	C
159229	Farm Product Warehousing and Storage	4221	C
159259	Gasoline Service Station	5541	C
159461	Gasoline Service Station	5541	C
159433	Sporting and Recreational Camps	7032	C
159418	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
159239	Auto Truck Repair Service	7538	C
159374	Auto Truck Repair Service	7538	C
159251	Car Wash	7542	C

Regulated Confined Animal Feeding Operations Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
2001107	C.h. White Sons	A-NEMR-BA06	C

Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3000165	Hillside Gardens	02001	C
3000828	Coastal Mart #2531	08646	C
3000941	Adams 66	11196	C
3001004	Council Grove Airport	13050	C

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3001060	H R Sales	15125	C
3001061	Haeker Standard Service	15144	C
3001071	Caseys	15479	C
3001280	Us Army Corp, Council Grove Lake	23261	C
3001736	Kdot, Council Grove	26666	C
3002101	Bolton Chrysler Plymouth	28571	C
3002653	Fairmont Building	81187	C

Regulated Identified Contaminated Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Solid Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Waste Water Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**
Diversion Id's: **016**
Status: **Accepted**
Submit Date: **2002-10-28 16:31:14**

Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

Added Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**

Added Potential Site Sources

Source No.	Source Name	SIC ID	Zone
Did Not Add Any Site Sources			

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**
Diversion Id's: **016**
Status: **Accepted**
Submit Date: **2002-10-28 16:31:14**

Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number of sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

Potential Contaminants Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**

Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
4	0	12	3	10	4

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**
Diversion Id's: **016**
Status: **Accepted**
Submit Date: **2002-10-28 16:31:14**

Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiological **B** – Inorganic Compounds **B1** – Eutrophication – Phosphorous
B2 – Sedimentation **B*** – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

Potential Contaminants Listing

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**

Unregulated Identified Site Sources and associated Potential Contaminant Category

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
7538	Auto Truck Repair Service	Inorganics, VOCs	B
"	"	"	D
7542	Car Wash	Inorganics, VOCs	B
"	"	"	B1
"	"	"	B2
"	"	"	D
5541	Gasoline Service Station	Inorganics, VOCs	B
"	"	"	D
1611	Highway and Street Construction	Sedimentation	B2
4212	Local Trucking, without Storage	VOCs	D
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	B
"	"	"	D
1542	Nonresidential Construction	Sedimentation	B2
3444	Sheet Metal Work Manufacturing	Metals and TSS, VOCs and metal etch	B
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	A
"	"	"	B1
"	"	"	B2

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	B*
"	"	"	C
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	B
"	"	"	D
752	Animal Specialty Services	Sanitary, fertilizers	A
"	"	"	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
4221	Farm Product Warehousing and Storage	TSS, VOCs	B
"	"	"	D
2711	Newspapers Publishing and Printing	Inorganics, VOCs, Semi volatiles	B
"	"	"	C
"	"	"	D

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**
Diversion Id's: **016**
Status: **Accepted**
Submit Date: **2002-10-28 16:31:14**

Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

Protection Measures

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
7538	Auto Truck Repair Service	Inorganics, VOCs	Discharge to POTW. Manage oil products and used oil so that it is not in contact with water	40 CFR 442 and
7542	Car Wash	Inorganics, VOCs	Install and maintain sediment and grease traps where appropriate	40 CFR 442
5541	Gasoline Service Station	Inorganics, VOCs	Maintain area to minimize fuel contamination	NA
1611	Highway and Street Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
4212	Local Trucking, without Storage	VOCs	Discharge to a POTW	State or federal Storm water pollution prevention regulations
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
1542	Nonresidential Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
3444	Sheet Metal Work Manufacturing	Metals and TSS, VOCs and metal etch	Minimize outdoor storage and control storm water runoff. Pre-treat process wastewater prior to discharge to POTW	40 CFR 464 and State or federal Storm water pollution prevention regulations
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers	KAR 28–48, KDHE, KDEM
7032	Sporting and Recreational Camps	sanitary, fertilizers, pesticides	Discharge to POTW. Minimize use of lawn chemicals	KAR 28–5
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	Discharge to POTW. Recycle where appropriate. Properly maintain oil product and waste. Manage paint and solvent wastes properly	NA
752	Animal Specialty Services	Sanitary, fertilizers	Collect and treat wastes.	NA

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
4221	Farm Product Warehousing and Storage	TSS, VOCs	Keep the area clean of grain. Use grease traps.	State or federal Storm water pollution prevention regulations
2711	Newspapers Publishing and Printing	Inorganics, VOCs, Semi volatiles	Recycle chemicals where possible. Discharge to POTW	40 CFR 459 and State or federal Storm water pollution prevention regulations

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**
Diversion Id's: **016**
Status: **Accepted**
Submit Date: **2002-10-28 16:31:14**

Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

Assessment Analysis

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**

Ground Water Single Well Analysis

A – Microbiological **B** – Inorganic Compounds
B* – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

No.	Question	Response	A	B	B*	C	C*	D
1	Is the well under the influence of surface water?	No	0	0	0	0	0	0
2	Does the well meet KS water well construction standards?	Yes	0	0	0	0	0	0
3	Is the depth of the well less than 30 feet?	No	0	0	0	0	0	0
4	Are there unplugged, abandoned water wells present in Zone A?	No	0	0	0	0	0	0
5	Is there gravel pack within 20 feet of the surface?	No	0	0	0	0	0	0
6	Does a PWS own or control Zone A?	Yes	0	0	0	0	0	0
7	Does Zone A consist entirely of native grass?	Yes	0	0	0	0	0	0
8	Is there a contaminated well in the Zone A?	No	0	0	0	0	0	0
9	Is a class V UIC well present?	No	0	0	0	0	0	0
10	Are any commercial, industrial, or urban areas present in Zone B?	No	0	0	0	0	0	0
11	Does each industrial/commercial site and urban area have a water quality protection plan in place?	Yes	0	0	0	0	0	0
12	Are any non-farm home sites present in Zone B?	Yes	1	0	1	0	1	0
13	Do all the non-farm home sites have a water quality protection plan?	No	1	0	1	0	1	0
14	Are any farmsteads present in Zone B?	Yes	1	1	1	1	1	1
15	Do all farmsteads have a water quality protection plan?	No	1	1	1	1	1	1
16	Does Zone B consist entirely of native grass?	No	1	1	1	1	1	1
17	Is there grazing livestock in Zone B?	Yes	1	0	1	0	0	0

No.	Question	Response	A	B	B*	C	C*	D
18	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
19	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0
20	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
21	Is there corn or grain sorghum production in Zone B?	Yes	0	0	1	0	1	0
22	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	No	0	0	1	0	1	0
23	Are any orchards present in Zone B?	No	0	0	0	0	0	0
24	Are orchard nutrient and pesticide plans in use for each site?	Yes	0	0	0	0	0	0
25	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	No	0	0	0	0	0	0
26	Is there a railroad or major highway in Zone B or C?	Yes	0	1	1	1	1	1
27	Is there oil production in Zone B or C?	Yes	0	1	0	1	0	1
28	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
29	Is an irrigation well located in Zone B or C?	Yes	0	1	1	1	1	1
30	Is a wastewater treatment facility in Zone B or C?	No	0	0	0	0	0	0
31	Is a solid waste landfill in Zone B or C?	No	0	0	0	0	0	0
32	Are there unplugged, abandoned water wells present in Zone B or C?	Yes	1	0	0	0	0	0
33	Are any commercial, industrial, or urban areas present in Zone C?	Yes	1	1	1	1	1	1
34	Are water quality protection plans in use for each site/area?	No	1	1	1	1	1	1
35	Is there livestock confinement in Zone C?	Yes	1	1	1	1	1	0
36	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
37	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
38	Are cropland nutrient management plans in place?	Yes	0	0	0	0	0	0
39	Are cropland pesticide management plans in place?	Yes	0	0	0	0	0	0
40	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
41	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**
Diversion Id's: **016**
Status: **Accepted**
Submit Date: **2002-10-28 16:31:14**

Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**

Comments for Unregulated Sites

Did Not Receive Any Comments

Comments for Regulated Confined Animal Feeding Operations Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
C.h. White Sons	2001107	This cattle livestock facility has no water quality protection plans.	Nicole Fisher

Comments for Regulated Hazardous Waste Sites

Did Not Receive Any Comments

Comments for Regulated Leaking Storage Tank Sites

Did Not Receive Any Comments

Comments for Regulated Identified Contaminated Sites

Did Not Receive Any Comments

Comments for Regulated Solid Waste Sites

Did Not Receive Any Comments

Comments for Regulated Waste Water Sites

Did Not Receive Any Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**
Diversion Id's: **016**
Status: **Accepted**
Submit Date: **2002-10-28 16:31:14**

Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

Added Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**

Comments for Added Contaminant Sites

Added Contaminant Site Name	Site No.	Site Comments	Author
Did Not Receive Any Comments			

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**
Diversion Id's: **016**
Status: **Accepted**
Submit Date: **2002-10-28 16:31:14**

Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

Analysis Question Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **101**

Comments for Analysis Questions

Analysis Question	Question Comments	Author
Did Not Receive Any Comments		

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**
Diversion Id's: **015**
Status: **Accepted**
Submit Date: **2002-10-28 16:35:26**

Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

Executive Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**

Susceptibility Likelihood Scores for Assessment Area

Contaminant Category	A	B	B*	C	C*	D
Susceptibility Likelihood Score – SLS	57	52	56	56	51	55
SLS Range	Mid	Mid	Mid	Mid	Low	Mid

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Susceptibility Likelihood Range

SLS Range	
0–50	Low Susceptibility
51–80	Moderate Susceptibility
81–100	High Susceptibility

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**
Diversion Id's: **015**
Status: **Accepted**
Submit Date: **2002-10-28 16:35:26**

Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100-foot radius around a groundwater well and a 1000-foot radius around a surface water intake. Zone B is a 2000-foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2-mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

Potential Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
201856	Animal Specialty Services	752	C
201771	Single-family Housing Construction	1521	C
201817	Single-family Housing Construction	1521	C
201976	Single-family Housing Construction	1521	C
201895	Machinery, Except Electrical Manufacturing	3599	C
201970	Motor Vehicles and Car Bodies Manufacturing	3711	C
201954	Scrap and Waste Materials	5093	C
201955	Scrap and Waste Materials	5093	C
202073	Gasoline Service Station	5541	C
202081	Photofinishing Laboratory	7384	C
201900	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
202098	Auto Truck Repair Service	7538	C
201916	Car Wash	7542	C
201778	Repair Services, Nec	7699	C
201818	Repair Services, Nec	7699	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
202064	Repair Services, Nec	7699	C

Regulated Confined Animal Feeding Operations Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
2001331	Stroberg Land Cattle	A-ARRN-BA09	C

Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3000075	Phillips 66	00781	C
3000582	Vickers #2171	06437	C
3000636	Kwik Shop #764	06647	C
3001252	Whithorn Service Center	22975	C
3002007	Safelight Autoglass	28045	C
3002123	General Store Of Westborough	28711	C

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3002199	Danny's Ok Serv	29067	C

Regulated Identified Contaminated Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
7000184	INEEDA – NORTHGATE	C207803027	C
7000201	GOLDEN POND	C207871190	C

Regulated Solid Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Waste Water Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
6000550	WESLEY TOWERS	I-AR49-CO17	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**
Diversion Id's: **015**
Status: **Accepted**
Submit Date: **2002-10-28 16:35:26**

Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

Added Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**

Added Potential Site Sources

Source No.	Source Name	SIC ID	Zone
9000182	dryland cropland	111	B
9000178	Airstrip	4582	B
9000176	pipelines	4600	B
9000179	Salvage Yard	10015	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**
Diversion Id's: **015**
Status: **Accepted**
Submit Date: **2002-10-28 16:35:26**

Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number of sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

Potential Contaminants Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**

Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
4	0	13	3	7	4

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**
Diversion Id's: **015**
Status: **Accepted**
Submit Date: **2002-10-28 16:35:26**

Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiological	B – Inorganic Compounds	B1 – Eutrophication – Phosphorous
B2 – Sedimentation	B* – Nitrates	C – Synthetic Organic Compounds
C* – Pesticides	D – Volatile Organic Compounds	

Potential Contaminants Listing

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**

Unregulated Identified Site Sources and associated Potential Contaminant Category

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
7538	Auto Truck Repair Service	Inorganics, VOCs	B
"	"	"	D
7542	Car Wash	Inorganics, VOCs	B
"	"	"	B1
"	"	"	B2
"	"	"	D
5541	Gasoline Service Station	Inorganics, VOCs	B
"	"	"	D
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	B
"	"	"	D
3711	Motor Vehicles and Car Bodies Manufacturing	inorganics, VOCs	B
"	"	"	D
7384	Photofinishing Laboratory	NA	B
"	"	"	D
5093	Scrap and Waste Materials	Metals, TSS	B
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	A
"	"	"	B1

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	B2
"	"	"	B*
"	"	"	C
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	B
"	"	"	D
752	Animal Specialty Services	Sanitary, fertilizers	A
"	"	"	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
7699	Repair Services, Nec	inorganics	B

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**
Diversion Id's: **015**
Status: **Accepted**
Submit Date: **2002-10-28 16:35:26**

Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

Protection Measures

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
7538	Auto Truck Repair Service	Inorganics, VOCs	Discharge to POTW. Manage oil products and used oil so that it is not in contact with water	40 CFR 442 and
7542	Car Wash	Inorganics, VOCs	Install and maintain sediment and grease traps where appropriate	40 CFR 442
5541	Gasoline Service Station	Inorganics, VOCs	Maintain area to minimize fuel contamination	NA
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
3711	Motor Vehicles and Car Bodies Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
7384	Photofinishing Laboratory	NA	Discharge to POTW. Recycle chemicals	CFR 40 459

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
5093	Scrap and Waste Materials	Metals, TSS	Minimize contact with storm water	State or federal Storm water pollution prevention regulations
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers	KAR 28-48, KDHE, KDEM
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	Discharge to POTW. Recycle where appropriate. Properly maintain oil product and waste. Manage paint and solvent wastes properly	NA
752	Animal Specialty Services	Sanitary, fertilizers	Collect and treat wastes.	NA
7699	Repair Services, Nec	inorganics	Discharge to POTW	NA

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**
Diversion Id's: **015**
Status: **Accepted**
Submit Date: **2002-10-28 16:35:26**

Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

Assessment Analysis

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**

Ground Water Single Well Analysis

A – Microbiological **B** – Inorganic Compounds
B* – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

No.	Question	Response	A	B	B*	C	C*	D
1	Is the well under the influence of surface water?	No	0	0	0	0	0	0
2	Does the well meet KS water well construction standards?	Yes	0	0	0	0	0	0
3	Is the depth of the well less than 30 feet?	No	0	0	0	0	0	0
4	Are there unplugged, abandoned water wells present in Zone A?	No	0	0	0	0	0	0
5	Is there gravel pack within 20 feet of the surface?	No	0	0	0	0	0	0
6	Does a PWS own or control Zone A?	Yes	0	0	0	0	0	0
7	Does Zone A consist entirely of native grass?	Yes	0	0	0	0	0	0
8	Is there a contaminated well in the Zone A?	No	0	0	0	0	0	0
9	Is a class V UIC well present?	No	0	0	0	0	0	0
10	Are any commercial, industrial, or urban areas present in Zone B?	Yes	1	1	1	1	1	1
11	Does each industrial/commercial site and urban area have a water quality protection plan in place?	No	1	1	1	1	1	1
12	Are any non-farm home sites present in Zone B?	Yes	1	0	1	0	1	0
13	Do all the non-farm home sites have a water quality protection plan?	No	1	0	1	0	1	0
14	Are any farmsteads present in Zone B?	Yes	1	1	1	1	1	1
15	Do all farmsteads have a water quality protection plan?	No	1	1	1	1	1	1
16	Does Zone B consist entirely of native grass?	No	1	1	1	1	1	1
17	Is there grazing livestock in Zone B?	Yes	1	0	1	0	0	0

No.	Question	Response	A	B	B*	C	C*	D
18	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
19	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0
20	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
21	Is there corn or grain sorghum production in Zone B?	Yes	0	0	1	0	1	0
22	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	No	0	0	1	0	1	0
23	Are any orchards present in Zone B?	No	0	0	0	0	0	0
24	Are orchard nutrient and pesticide plans in use for each site?	Yes	0	0	0	0	0	0
25	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	Yes	1	1	1	0	0	0
26	Is there a railroad or major highway in Zone B or C?	Yes	0	1	1	1	1	1
27	Is there oil production in Zone B or C?	Yes	0	1	0	1	0	1
28	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
29	Is an irrigation well located in Zone B or C?	Yes	0	1	1	1	1	1
30	Is a wastewater treatment facility in Zone B or C?	Yes	1	1	1	1	1	1
31	Is a solid waste landfill in Zone B or C?	No	0	0	0	0	0	0
32	Are there unplugged, abandoned water wells present in Zone B or C?	Yes	1	0	0	0	0	0
33	Are any commercial, industrial, or urban areas present in Zone C?	Yes	1	1	1	1	1	1
34	Are water quality protection plans in use for each site/area?	No	1	1	1	1	1	1
35	Is there livestock confinement in Zone C?	Yes	1	1	1	1	1	0
36	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
37	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
38	Are cropland nutrient management plans in place?	Yes	0	0	0	0	0	0
39	Are cropland pesticide management plans in place?	Yes	0	0	0	0	0	0
40	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
41	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**
Diversion Id's: **015**
Status: **Accepted**
Submit Date: **2002-10-28 16:35:26**

Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**

Comments for Unregulated Sites

Did Not Receive Any Comments

Comments for Regulated Confined Animal Feeding Operations Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Stroberg Land Cattle	2001331	This cattle livestock facility has no water quality protection plans.	Nicole Fisher

Comments for Regulated Hazardous Waste Sites

Did Not Receive Any Comments

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
General Store Of Westborough	3002123	The site is currently being monitored from a gasoline spill in 1994. Groundwater contamination suspected.	Nicole Fisher

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Kwik Shop #764	3000636	The site is closed from a gasoline leak in 1998. No groundwater contamination was suspected.	Nicole Fisher
Phillips 66	3000075	The site is currently being monitored from a gasoline contamination in 1990. PWS and domestic water wells were within .25 miles downgradient of contamination.	Nicole Fisher
Safelight Autoglass	3002007	The site is closed from a 1989 spill. No groundwater contamination was suspected.	Nicole Fisher
Vickers #2171	3000582	The site is currently being monitored from a gasoline contamination in 1987. Five monitoring wells were established to detect contamination in groundwater.	Nicole Fisher
Whithorn Service Center	3001252	The site is active from gasoline contamination in 2000. PWS and domestic water wells are within .25 miles of contamination.	Nicole Fisher

Comments for Regulated Identified Contaminated Sites

Did Not Receive Any Comments

Comments for Regulated Solid Waste Sites

Did Not Receive Any Comments

Comments for Regulated Waste Water Sites

Did Not Receive Any Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**
Diversion Id's: **015**
Status: **Accepted**
Submit Date: **2002-10-28 16:35:26**

Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

Added Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**

Comments for Added Contaminant Sites

Added Contaminant Site Name	Site No.	Site Comments	Author
Airstrip	9000178	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
Salvage Yard	9000179	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000182	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
pipelines	9000176	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**
Diversion Id's: **015**
Status: **Accepted**
Submit Date: **2002-10-28 16:35:26**

Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

Analysis Question Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **102**

Comments for Analysis Questions

Analysis Question	Question Comments	Author
Did Not Receive Any Comments		

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**
Diversion Id's: **014**
Status: **Accepted**
Submit Date: **2002-10-28 16:39:27**

Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

Executive Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**

Susceptibility Likelihood Scores for Assessment Area

Contaminant Category	A	B	B*	C	C*	D
Susceptibility Likelihood Score – SLS	32	42	29	48	33	51
SLS Range	Low	Low	Low	Low	Low	Low

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Susceptibility Likelihood Range

SLS Range	
0–50	Low Susceptibility
51–80	Moderate Susceptibility
81–100	High Susceptibility

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**
Diversion Id's: **014**
Status: **Accepted**
Submit Date: **2002-10-28 16:39:27**

Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100-foot radius around a groundwater well and a 1000-foot radius around a surface water intake. Zone B is a 2000-foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2-mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

Potential Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
201927	Veterinary Services, Specialties	742	B
201928	Veterinary Services, Specialties	742	B
201970	Motor Vehicles and Car Bodies Manufacturing	3711	B
201954	Scrap and Waste Materials	5093	B
201955	Scrap and Waste Materials	5093	B
202073	Gasoline Service Station	5541	B
202081	Photofinishing Laboratory	7384	B
201930	Auto Truck Repair Service	7538	B
201916	Car Wash	7542	B
201923	Car Wash	7542	B
201931	Car Wash	7542	B
201702	Veterinary Services, Specialties	742	C
201703	Veterinary Services, Specialties	742	C
201704	Veterinary Services, Specialties	742	C
202014	Veterinary Services, Specialties	742	C
200070	Animal Specialty Services	752	C
200269	Animal Specialty Services	752	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
201691	Animal Specialty Services	752	C
201856	Animal Specialty Services	752	C
202018	Animal Specialty Services	752	C
200013	Single-family Housing Construction	1521	C
200014	Single-family Housing Construction	1521	C
200019	Single-family Housing Construction	1521	C
200086	Single-family Housing Construction	1521	C
200290	Single-family Housing Construction	1521	C
200335	Single-family Housing Construction	1521	C
200367	Single-family Housing Construction	1521	C
201087	Single-family Housing Construction	1521	C
201676	Single-family Housing Construction	1521	C
201682	Single-family Housing Construction	1521	C
201976	Single-family Housing Construction	1521	C
202016	Single-family Housing Construction	1521	C
201699	Nonresidential Construction	1542	C
201013	Highway and Street Construction	1611	C
200150	Bakery Products Manufacturing	2052	C
201235	Commercial Printing-Lithographic	2752	C
201249	Commercial Printing NEC	2759	C
201812	Commercial Printing NEC	2759	C
201668	Fabricated Metal Products Manufacturing	3499	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
199964	Fluid power cylinders and actuators Manufacturing	3593	C
201895	Machinery, Except Electrical Manufacturing	3599	C
199993	Motor vehicle Parts and Accessories Manufacturing	3714	C
200046	Local Trucking, without Storage	4212	C
199825	Farm Product Warehousing and Storage	4221	C
201010	Farm Product Warehousing and Storage	4221	C
201038	Farm Product Warehousing and Storage	4221	C
201679	Farm and Garden Machinery	5083	C
199976	Scrap and Waste Materials	5093	C
200333	Scrap and Waste Materials	5093	C
200135	Mobile Home Park	6515	C
201067	Mobile Home Park	6515	C
201253	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
201900	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
201226	Auto Truck Repair Service	7538	C
200370	Repair Services, Nec	7699	C
200993	Repair Services, Nec	7699	C
201818	Repair Services, Nec	7699	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
202064	Repair Services, Nec	7699	C

Regulated Confined Animal Feeding Operations Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3000075	Phillips 66	00781	B
3000582	Vickers #2171	06437	B
3001000	Erickson, Schofield	13016	B
3000076	Dick Enterprise, Inc.	00786	C
3000516	Hutchinson Hospital	06187	C
3000632	Kwik Shop #738	06630	C
3000636	Kwik Shop #764	06647	C

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3000662	Pic Quik	06790	C
3000663	Pic Quik #7	06792	C
3000674	T E Oil	06839	C
3000744	Coastal Mart #9106	07202	C
3000762	Golden Plains Health Care Center	07568	C
3000997	Conklin Cars	12986	C
3001165	Radke Oil	18780	C
3001252	Whithorn Service Center	22975	C
3001366	Kansas State Fair	24194	C
3001485	Central Christian School	25549	C
3001583	Usd 308, Maintenance	26026	C
3001584	Usd 308, Central Ks Vo-tech	26027	C
3001674	Kmart	26418	C
3001805	Wen's One Convenience	26980	C
3001818	Ups	27052	C
3001983	Petron International	27857	C
3002007	Safelight Autoglass	28045	C
3002199	Danny's Ok Serv	29067	C
3002262	Usd 308, Hutchinson Hs	29367	C
3002378	Usd 313, Union Valley Grade School	29989	C

Regulated Identified Contaminated Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
7000184	INEEDA – NORTHGATE	C207803027	B

Regulated Identified Contaminated Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
7000183	AMERICAN UNIFORM (25TH AND MAIN) (FORMER)	C207800674	C
7000185	INEEDA LAUNDRY AND DRY CLEANER(13TH AND MAIN)	C207803034	C
7000190	LOWEN CORP – 4TH LORRAINE	C207870599	C
7000195	11TH LORRAINE	C207870829	C
7000201	GOLDEN POND	C207871190	C

Regulated Solid Waste Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
5000411	Collingwood Grain, Inc.	0402-S	C

Regulated Waste Water Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
6000069	TOTAL PETROLEUM–VICKERS SERV. STATION	I-AR49-PO05	C
6000550	WESLEY TOWERS	I-AR49-CO17	C
6000551	MEDICAL CENTER, P.A.	I-AR49-CO18	C
6000552	TRINITY UNITED METHODIST CHURCH	I-AR49-CO19	C
6000553	RITCHIE CONSTRUCTION LAGOON NO. 1	I-AR49-NP03	C

Regulated Waste Water Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
6000555	IMC SALT, INC.	I-AR49-PO02	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**
Diversion Id's: **014**
Status: **Accepted**
Submit Date: **2002-10-28 16:39:27**

Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

Added Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**

Added Potential Site Sources

Source No.	Source Name	SIC ID	Zone
9001655	greenhouse	175	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**
Diversion Id's: **014**
Status: **Accepted**
Submit Date: **2002-10-28 16:39:27**

Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number of sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

Potential Contaminants Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**

Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
26	0	43	15	21	19

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**
Diversion Id's: **014**
Status: **Accepted**
Submit Date: **2002-10-28 16:39:27**

Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiological	B – Inorganic Compounds	B1 – Eutrophication – Phosphorous
B2 – Sedimentation	B* – Nitrates	C – Synthetic Organic Compounds
C* – Pesticides	D – Volatile Organic Compounds	

Potential Contaminants Listing

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**

Unregulated Identified Site Sources and associated Potential Contaminant Category

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
7538	Auto Truck Repair Service	Inorganics, VOCs	B
"	"	"	D
2052	Bakery Products Manufacturing	BOD,oil and grease, TSS	A
"	"	"	B
7542	Car Wash	Inorganics, VOCs	B
"	"	"	B1
"	"	"	B2
"	"	"	D
3499	Fabricated Metal Products Manufacturing	inorganics, VOCs	B
"	"	"	D
3593	Fluid power cylinders and actuators Manufacturing	inorganics, VOCs	B
"	"	"	D
5541	Gasoline Service Station	Inorganics, VOCs	B
"	"	"	D
1611	Highway and Street Construction	Sedimentation	B2
4212	Local Trucking, without Storage	VOCs	D
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	B

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	D
6515	Mobile Home Park	Sanitary wastes, Fertilizers	A
"	"	"	B
"	"	"	B1
"	"	"	B*
3711	Motor Vehicles and Car Bodies Manufacturing	inorganics, VOCs	B
"	"	"	D
3714	Motor vehicle Parts and Accessories Manufacturing	inorganics, VOCs	B
"	"	"	D
1542	Nonresidential Construction	Sedimentation	B2
7384	Photofinishing Laboratory	NA	B
"	"	"	D
5093	Scrap and Waste Materials	Metals, TSS	B
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	A
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	C
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	B

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	D
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	A
"	"	"	B
752	Animal Specialty Services	Sanitary, fertilizers	A
"	"	"	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
2759	Commercial Printing NEC	Inorganics, VOCs, Semi volatiles	B
"	"	"	C
"	"	"	D
2752	Commercial Printing–Lithographic	Inorganics, VOCs, Semi volatiles	B
"	"	"	C
"	"	"	D
4221	Farm Product Warehousing and Storage	TSS, VOCs	B
"	"	"	D
5083	Farm and Garden Machinery	inorganics	B
7699	Repair Services, Nec	inorganics	B

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**
Diversion Id's: **014**
Status: **Accepted**
Submit Date: **2002-10-28 16:39:27**

Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

Protection Measures

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
7538	Auto Truck Repair Service	Inorganics, VOCs	Discharge to POTW. Manage oil products and used oil so that it is not in contact with water	40 CFR 442 and
2052	Bakery Products Manufacturing	BOD,oil and grease, TSS	Wastewater pretreatment and/or discharge to a POTW. Grounds maintenance and cleanup.	40 CFR 122 and State or federal Storm water pollution prevention regulations
7542	Car Wash	Inorganics, VOCs	Install and maintain sediment and grease traps where appropriate	40 CFR 442
3499	Fabricated Metal Products Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
3593	Fluid power cylinders and actuators Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
5541	Gasoline Service Station	Inorganics, VOCs	Maintain area to minimize fuel contamination	NA

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
1611	Highway and Street Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
4212	Local Trucking, without Storage	VOCs	Discharge to a POTW	State or federal Storm water pollution prevention regulations
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
6515	Mobile Home Park	Sanitary wastes, Fertilizers	Discharge to POTW. Minimize use of lawn chemicals	KAR 28–5
3711	Motor Vehicles and Car Bodies Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
3714	Motor vehicle Parts and Accessories Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	40 CFR 464 and State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
1542	Nonresidential Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
7384	Photofinishing Laboratory	NA	Discharge to POTW. Recycle chemicals	CFR 40 459
5093	Scrap and Waste Materials	Metals, TSS	Minimize contact with storm water	State or federal Storm water pollution prevention regulations
1521	Single–family Housing Construction	Oil, Paint, Pesticides, Fertilizers	Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers	KAR 28–48, KDHE, KDEM
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	Discharge to POTW. Recycle where appropriate. Properly maintain oil product and waste. Manage paint and solvent wastes properly	NA
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	Discharge to POT	NA

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
752	Animal Specialty Services	Sanitary, fertilizers	Collect and treat wastes.	NA
2759	Commercial Printing NEC	Inorganics, VOCs, Semi volatiles	Recycle chemicals where possible. Discharge to POTW	40 CFR 459 and State or federal Storm water pollution prevention regulations
2752	Commercial Printing—Lithographic	Inorganics, VOCs, Semi volatiles	Recycle chemicals where possible. Discharge to POTW	40 CFR 459 and State or federal Storm water pollution prevention regulations
4221	Farm Product Warehousing and Storage	TSS, VOCs	Keep the area clean of grain. Use grease traps.	State or federal Storm water pollution prevention regulations
5083	Farm and Garden Machinery	inorganics	Discharge to POTW	NA
7699	Repair Services, Nec	inorganics	Discharge to POTW	NA

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**
Diversion Id's: **014**
Status: **Accepted**
Submit Date: **2002-10-28 16:39:27**

Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

Assessment Analysis

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**

Ground Water Single Well Analysis

A – Microbiological **B** – Inorganic Compounds
B* – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

No.	Question	Response	A	B	B*	C	C*	D
1	Is the well under the influence of surface water?	No	0	0	0	0	0	0
2	Does the well meet KS water well construction standards?	Yes	0	0	0	0	0	0
3	Is the depth of the well less than 30 feet?	No	0	0	0	0	0	0
4	Are there unplugged, abandoned water wells present in Zone A?	No	0	0	0	0	0	0
5	Is there gravel pack within 20 feet of the surface?	No	0	0	0	0	0	0
6	Does a PWS own or control Zone A?	Yes	0	0	0	0	0	0
7	Does Zone A consist entirely of native grass?	Yes	0	0	0	0	0	0
8	Is there a contaminated well in the Zone A?	No	0	0	0	0	0	0
9	Is a class V UIC well present?	No	0	0	0	0	0	0
10	Are any commercial, industrial, or urban areas present in Zone B?	Yes	1	1	1	1	1	1
11	Does each industrial/commercial site and urban area have a water quality protection plan in place?	No	1	1	1	1	1	1
12	Are any non-farm home sites present in Zone B?	No	0	0	0	0	0	0
13	Do all the non-farm home sites have a water quality protection plan?	Yes	0	0	0	0	0	0
14	Are any farmsteads present in Zone B?	No	0	0	0	0	0	0
15	Do all farmsteads have a water quality protection plan?	Yes	0	0	0	0	0	0
16	Does Zone B consist entirely of native grass?	No	1	1	1	1	1	1
17	Is there grazing livestock in Zone B?	No	0	0	0	0	0	0

No.	Question	Response	A	B	B*	C	C*	D
18	Do all the livestock producers have water quality protection measures in place?	Yes	0	0	0	0	0	0
19	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0
20	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
21	Is there corn or grain sorghum production in Zone B?	No	0	0	0	0	0	0
22	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
23	Are any orchards present in Zone B?	No	0	0	0	0	0	0
24	Are orchard nutrient and pesticide plans in use for each site?	Yes	0	0	0	0	0	0
25	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	No	0	0	0	0	0	0
26	Is there a railroad or major highway in Zone B or C?	Yes	0	1	1	1	1	1
27	Is there oil production in Zone B or C?	Yes	0	1	0	1	0	1
28	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
29	Is an irrigation well located in Zone B or C?	Yes	0	1	1	1	1	1
30	Is a wastewater treatment facility in Zone B or C?	Yes	1	1	1	1	1	1
31	Is a solid waste landfill in Zone B or C?	Yes	1	1	1	1	1	1
32	Are there unplugged, abandoned water wells present in Zone B or C?	Yes	1	0	0	0	0	0
33	Are any commercial, industrial, or urban areas present in Zone C?	Yes	1	1	1	1	1	1
34	Are water quality protection plans in use for each site/area?	No	1	1	1	1	1	1
35	Is there livestock confinement in Zone C?	No	0	0	0	0	0	0
36	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
37	Do all the livestock producers have water quality protection measures in place?	Yes	0	0	0	0	0	0
38	Are cropland nutrient management plans in place?	Yes	0	0	0	0	0	0
39	Are cropland pesticide management plans in place?	Yes	0	0	0	0	0	0
40	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
41	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**
Diversion Id's: **014**
Status: **Accepted**
Submit Date: **2002-10-28 16:39:27**

Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**

Comments for Unregulated Sites

Did Not Receive Any Comments

Comments for Regulated Confined Animal Feeding Operations Sites

Did Not Receive Any Comments

Comments for Regulated Hazardous Waste Sites

Did Not Receive Any Comments

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Erickson, Schofield	3001000	The site is closed from a waste oil spill in 1993. The soil was stained but no groundwater contamination was suspected.	Nicole Fisher
Kwik Shop #764	3000636	The site is closed from a gasoline leak in 1998. No groundwater contamination was suspected.	Nicole Fisher

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Phillips 66	3000075	The site is currently being monitored from a gasoline contamination in 1990. PWS and domestic water wells were within .25 miles downgradient of contamination.	Nicole Fisher
Pic Quik #7	3000663	The site is currently being monitored from a gasoline leak in 1995. There are several domestic water supplies within .25 miles downgradient of the contamination.	Nicole Fisher
Safelight Autoglass	3002007	The site is closed from a 1989 spill. No groundwater contamination was suspected.	Nicole Fisher
Vickers #2171	3000582	The site is currently being monitored from a gasoline contamination in 1987. Five monitoring wells were established to detect contamination in groundwater.	Nicole Fisher
Whithorn Service Center	3001252	The site is active from gasoline contamination in 2000. PWS and domestic water wells are within .25 miles of contamination.	Nicole Fisher

Comments for Regulated Identified Contaminated Sites

Did Not Receive Any Comments

Comments for Regulated Solid Waste Sites

Did Not Receive Any Comments

Comments for Regulated Waste Water Sites

Did Not Receive Any Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**
Diversion Id's: **014**
Status: **Accepted**
Submit Date: **2002-10-28 16:39:27**

Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

Added Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**

Comments for Added Contaminant Sites

Added Contaminant Site Name	Site No.	Site Comments	Author
greenhouse	9001655	Greenhouse with potential groundwater contaminates on site	Peggy Holloway

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**
Diversion Id's: **014**
Status: **Accepted**
Submit Date: **2002-10-28 16:39:27**

Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

Analysis Question Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **103**

Comments for Analysis Questions

Analysis Question	Question Comments	Author
Did Not Receive Any Comments		

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**
Diversion Id's: **007, 013**
Status: **Accepted**
Submit Date: **2002-10-28 16:51:14**

Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

Executive Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**

Susceptibility Likelihood Scores for Assessment Area

Contaminant Category	A	B	B*	C	C*	D
Susceptibility Likelihood Score – SLS	44	49	37	56	39	55
SLS Range	Low	Low	Low	Mid	Low	Mid

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Susceptibility Likelihood Range

SLS Range	
0–50	Low Susceptibility
51–80	Moderate Susceptibility
81–100	High Susceptibility

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**
Diversion Id's: **007, 013**
Status: **Accepted**
Submit Date: **2002-10-28 16:51:14**

Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100-foot radius around a groundwater well and a 1000-foot radius around a surface water intake. Zone B is a 2000-foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2-mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

Potential Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
201856	Animal Specialty Services	752	B
199827	General Farm, Primarily Crop	191	C
200078	Veterinary Services, Specialties	742	C
200347	Veterinary Services, Specialties	742	C
200763	Veterinary Services, Specialties	742	C
201927	Veterinary Services, Specialties	742	C
201928	Veterinary Services, Specialties	742	C
202014	Veterinary Services, Specialties	742	C
199886	Animal Specialty Services	752	C
199889	Animal Specialty Services	752	C
200070	Animal Specialty Services	752	C
200269	Animal Specialty Services	752	C
200287	Animal Specialty Services	752	C
200463	Animal Specialty Services	752	C
200483	Animal Specialty Services	752	C
201203	Animal Specialty Services	752	C
202018	Animal Specialty Services	752	C
199884	Single-family Housing Construction	1521	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
200079	Single-family Housing Construction	1521	C
200290	Single-family Housing Construction	1521	C
200335	Single-family Housing Construction	1521	C
200367	Single-family Housing Construction	1521	C
200470	Single-family Housing Construction	1521	C
200475	Single-family Housing Construction	1521	C
200534	Single-family Housing Construction	1521	C
200597	Single-family Housing Construction	1521	C
200605	Single-family Housing Construction	1521	C
201087	Single-family Housing Construction	1521	C
201271	Single-family Housing Construction	1521	C
201771	Single-family Housing Construction	1521	C
201817	Single-family Housing Construction	1521	C
201976	Single-family Housing Construction	1521	C
202016	Single-family Housing Construction	1521	C
200594	Highway and Street Construction	1611	C
200616	Highway and Street Construction	1611	C
201013	Highway and Street Construction	1611	C
200569	Wood Kitchen Cabinets Manufacturing	2434	C
200353	Newspapers Publishing and Printing	2711	C
200673	Newspapers Publishing and Printing	2711	C
200939	Commercial Printing-Lithographic	2752	C
201306	Commercial Printing-Lithographic	2752	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
200608	Commercial Printing NEC	2759	C
201276	Lubricating Oils and Greases Manufacturing	2992	C
200596	Sheet Metal Work Manufacturing	3444	C
200099	Plating and Polishing Manufacturing	3471	C
200908	Machinery, Except Electrical Manufacturing	3599	C
201895	Machinery, Except Electrical Manufacturing	3599	C
201970	Motor Vehicles and Car Bodies Manufacturing	3711	C
200413	Signs and Advertising Display Manufacturing	3993	C
200468	Signs and Advertising Display Manufacturing	3993	C
200570	Signs and Advertising Display Manufacturing	3993	C
200603	Signs and Advertising Display Manufacturing	3993	C
200940	Signs and Advertising Display Manufacturing	3993	C
201167	Signs and Advertising Display Manufacturing	3993	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
200046	Local Trucking, without Storage	4212	C
200560	Farm Product Warehousing and Storage	4221	C
201010	Farm Product Warehousing and Storage	4221	C
201038	Farm Product Warehousing and Storage	4221	C
200535	Recreational vehicle sales and repair	5012	C
200379	Farm and Garden Machinery	5083	C
200567	Farm and Garden Machinery	5083	C
200333	Scrap and Waste Materials	5093	C
201954	Scrap and Waste Materials	5093	C
201955	Scrap and Waste Materials	5093	C
200338	Gasoline Service Station	5541	C
200548	Gasoline Service Station	5541	C
202073	Gasoline Service Station	5541	C
200125	Recreational vehicle sales and repair	5561	C
201067	Mobile Home Park	6515	C
202081	Photofinishing Laboratory	7384	C
199882	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
200532	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
200912	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
201153	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
201179	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
201900	Top, Body, and Upholstery Repair Shops and Paint Shops	7532	C
199861	Auto Truck Repair Service	7538	C
199890	Auto Truck Repair Service	7538	C
200082	Auto Truck Repair Service	7538	C
200439	Auto Truck Repair Service	7538	C
200576	Auto Truck Repair Service	7538	C
200585	Auto Truck Repair Service	7538	C
200586	Auto Truck Repair Service	7538	C
200651	Auto Truck Repair Service	7538	C
200909	Auto Truck Repair Service	7538	C
201184	Auto Truck Repair Service	7538	C
201226	Auto Truck Repair Service	7538	C
201345	Auto Truck Repair Service	7538	C
201930	Auto Truck Repair Service	7538	C
200340	Car Wash	7542	C
200487	Car Wash	7542	C
201267	Car Wash	7542	C
201916	Car Wash	7542	C
201923	Car Wash	7542	C
201931	Car Wash	7542	C

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
199896	Repair Services, Nec	7699	C
200370	Repair Services, Nec	7699	C
200937	Repair Services, Nec	7699	C
200993	Repair Services, Nec	7699	C
201199	Repair Services, Nec	7699	C
201282	Repair Services, Nec	7699	C
201778	Repair Services, Nec	7699	C
201818	Repair Services, Nec	7699	C
202064	Repair Services, Nec	7699	C
201341	Racing, Including Track Operation	7948	C

Regulated Confined Animal Feeding Operations Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
2001331	Stroberg Land Cattle	A-ARRN-BA09	C

Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3000636	Kwik Shop #764	06647	B

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3001252	Whithorn Service Center	22975	B
3002007	Safelight Autoglass	28045	B
3000039	Reno Co Emergency Preparedness	00191	C
3000053	Town Country #70	00309	C
3000074	Patlyn Oil	00774	C
3000075	Phillips 66	00781	C
3000315	Farmers Coop Elevator Co.	03866	C
3000582	Vickers #2171	06437	C
3000618	Pic Quik	06584	C
3000632	Kwik Shop #738	06630	C
3000662	Pic Quik	06790	C
3000663	Pic Quik #7	06792	C
3000744	Coastal Mart #9106	07202	C
3000762	Golden Plains Health Care Center	07568	C
3000770	Bridgeman Oil (zip Trip)	07708	C
3000834	Highway Oil #743	08682	C
3000888	Fina #9479 (t E Oil #17)	09026	C
3000889	T E Oil #16	09028	C
3000948	Mel Turner Motors	11388	C
3001000	Erickson, Schofield	13016	C
3001066	Mid America Maintenance, Hutchinson	15399	C
3001165	Radke Oil	18780	C
3001170	Reger Rental Sales	19186	C

Regulated Leaking Storage Tank Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
3001366	Kansas State Fair	24194	C
3001374	Us Postal Serv, Hutchinson	24227	C
3001583	Usd 308, Maintenance	26026	C
3001584	Usd 308, Central Ks Vo-tech	26027	C
3001674	Kmart	26418	C
3001755	Kdot	26714	C
3001779	Coleman American Moving	26865	C
3001790	Harold's Car Care Wash, Former	26916	C
3001805	Wen's One Convenience	26980	C
3001995	Town Country #76	27943	C
3002123	General Store Of Westborough	28711	C
3002199	Danny's Ok Serv	29067	C
3002202	Luminous Neon	29092	C
3002262	Usd 308, Hutchinson Hs	29367	C

Regulated Identified Contaminated Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
7000201	GOLDEN POND	C207871190	B
7000181	HUTCHINSON NEWS	C207800132	C
7000183	AMERICAN UNIFORM (25TH AND MAIN) (FORMER)	C207800674	C

Regulated Identified Contaminated Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
7000184	INEEDA – NORTHGATE	C207803027	C
7000185	INEEDA LAUNDRY AND DRY CLEANER(13TH AND MAIN)	C207803034	C
7000186	FMGP – HUTCHINSON	C207870012	C
7000189	SAYLOR CLEANERS	C207870351	C
7000193	129 WEST AVENUE A	C207870809	C
7000195	11TH LORRAINE	C207870829	C

Regulated Solid Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Waste Water Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
6000069	TOTAL PETROLEUM–VICKERS SERV. STATION	I–AR49–PO05	C
6000550	WESLEY TOWERS	I–AR49–CO17	C
6000551	MEDICAL CENTER, P.A.	I–AR49–CO18	C
6000552	TRINITY UNITED METHODIST CHURCH	I–AR49–CO19	C
6000555	IMC SALT, INC.	I–AR49–PO02	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**
Diversion Id's: **007, 013**
Status: **Accepted**
Submit Date: **2002-10-28 16:51:14**

Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

Added Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**

Added Potential Site Sources

Source No.	Source Name	SIC ID	Zone
9000176	pipelines	4600	B
9000179	Salvage Yard	10015	C
9000177	private dump	10090	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**
Diversion Id's: **007, 013**
Status: **Accepted**
Submit Date: **2002-10-28 16:51:14**

Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number of sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

Potential Contaminants Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**

Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
33	1	83	22	50	28

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**
Diversion Id's: **007, 013**
Status: **Accepted**
Submit Date: **2002-10-28 16:51:14**

Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiological	B – Inorganic Compounds	B1 – Eutrophication – Phosphorous
B2 – Sedimentation	B* – Nitrates	C – Synthetic Organic Compounds
C* – Pesticides	D – Volatile Organic Compounds	

Potential Contaminants Listing

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**

Unregulated Identified Site Sources and associated Potential Contaminant Category

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
7538	Auto Truck Repair Service	Inorganics, VOCs	B
"	"	"	D
7542	Car Wash	Inorganics, VOCs	B
"	"	"	B1
"	"	"	B2
"	"	"	D
5541	Gasoline Service Station	Inorganics, VOCs	B
"	"	"	D
1611	Highway and Street Construction	Sedimentation	B2
4212	Local Trucking, without Storage	VOCs	D
2992	Lubricating Oils and Greases Manufacturing	Semi volatiles, VOCs	C
"	"	"	D
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	B
"	"	"	D
6515	Mobile Home Park	Sanitary wastes, Fertilizers	A
"	"	"	B
"	"	"	B1

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
6515	Mobile Home Park	Sanitary wastes, Fertilizers	B*
3711	Motor Vehicles and Car Bodies Manufacturing	inorganics, VOCs	B
"	"	"	D
7384	Photofinishing Laboratory	NA	B
"	"	"	D
3471	Plating and Polishing Manufacturing	Inorganics, metals, VOCs and metal etch	B
"	"	"	D
5093	Scrap and Waste Materials	Metals, TSS	B
3444	Sheet Metal Work Manufacturing	Metals and TSS, VOCs and metal etch	B
3993	Signs and Advertising Display Manufacturing	inorganics, VOCs	B
"	"	"	D
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	A
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	C
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	B
"	"	"	D
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	A

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	B
2434	Wood Kitchen Cabinets Manufacturing	TSS, VOCs	B
"	"	"	D
752	Animal Specialty Services	Sanitary, fertilizers	A
"	"	"	B
"	"	"	B1
"	"	"	B2
"	"	"	B*
2759	Commercial Printing NEC	Inorganics, VOCs, Semi volatiles	B
"	"	"	C
"	"	"	D
2752	Commercial Printing–Lithographic	Inorganics, VOCs, Semi volatiles	B
"	"	"	C
"	"	"	D
4221	Farm Product Warehousing and Storage	TSS, VOCs	B
"	"	"	D
5083	Farm and Garden Machinery	inorganics	B
191	General Farm, Primarily Crop	fertilizers, Pesticides	B
"	"	"	B1

Unregulated Identified Site Sources and associated Potential Contaminant Category.

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
191	General Farm, Primarily Crop	fertilizers, Pesticides	B2
"	"	"	B*
"	"	"	C*
2711	Newspapers Publishing and Printing	Inorganics, VOCs, Semi volatiles	B
"	"	"	C
"	"	"	D
7948	Racing, Including Track Operation		NA
5012	Recreational vehicle sales and repair	Inorganics	B
5561	Recreational vehicle sales and repair	Inorganics	B
7699	Repair Services, Nec	inorganics	B

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**
Diversion Id's: **007, 013**
Status: **Accepted**
Submit Date: **2002-10-28 16:51:14**

Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

Protection Measures

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
7538	Auto Truck Repair Service	Inorganics, VOCs	Discharge to POTW. Manage oil products and used oil so that it is not in contact with water	40 CFR 442 and
7542	Car Wash	Inorganics, VOCs	Install and maintain sediment and grease traps where appropriate	40 CFR 442
5541	Gasoline Service Station	Inorganics, VOCs	Maintain area to minimize fuel contamination	NA
1611	Highway and Street Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
4212	Local Trucking, without Storage	VOCs	Discharge to a POTW	State or federal Storm water pollution prevention regulations
2992	Lubricating Oils and Greases Manufacturing	Semi volatiles, VOCs	Control storm water runoff to minimize contact with product or wastes. Pre-treat wastewater prior to discharge (direct or POTW)	State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
3599	Machinery, Except Electrical Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
6515	Mobile Home Park	Sanitary wastes, Fertilizers	Discharge to POTW. Minimize use of lawn chemicals	KAR 28–5
3711	Motor Vehicles and Car Bodies Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	State or federal Storm water pollution prevention regulations
7384	Photofinishing Laboratory	NA	Discharge to POTW. Recycle chemicals	CFR 40 459
3471	Plating and Polishing Manufacturing	Inorganics, metals, VOCs and metal etch	Minimize outdoor storage and control storm water runoff. Pre-treat process wastewater prior to discharge to POTW	40 CFR 413 and State or federal Storm water pollution prevention regulations
5093	Scrap and Waste Materials	Metals, TSS	Minimize contact with storm water	State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
3444	Sheet Metal Work Manufacturing	Metals and TSS, VOCs and metal etch	Minimize outdoor storage and control storm water runoff. Pre-treat process wastewater prior to discharge to POTW	40 CFR 464 and State or federal Storm water pollution prevention regulations
3993	Signs and Advertising Display Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	40 CFR 459 and State or federal Storm water pollution prevention regulations
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers	KAR 28-48, KDHE, KDEM
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Inorganics, VOCs	Discharge to POTW. Recycle where appropriate. Properly maintain oil product and waste. Manage paint and solvent wastes properly	NA
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	Discharge to POT	NA
2434	Wood Kitchen Cabinets Manufacturing	TSS, VOCs	Discharge of process waters to POTW. Minimize outdoor storage.	State or federal Storm water pollution prevention regulations

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
752	Animal Specialty Services	Sanitary, fertilizers	Collect and treat wastes.	NA
2759	Commercial Printing NEC	Inorganics, VOCs, Semi volatiles	Recycle chemicals where possible. Discharge to POTW	40 CFR 459 and State or federal Storm water pollution prevention regulations
2752	Commercial Printing—Lithographic	Inorganics, VOCs, Semi volatiles	Recycle chemicals where possible. Discharge to POTW	40 CFR 459 and State or federal Storm water pollution prevention regulations
4221	Farm Product Warehousing and Storage	TSS, VOCs	Keep the area clean of grain. Use grease traps.	State or federal Storm water pollution prevention regulations
5083	Farm and Garden Machinery	inorganics	Discharge to POTW	NA
191	General Farm, Primarily Crop	fertilizers, Pesticides	Maintain good erosion control practices and minimize the use of chemicals	NA

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
2711	Newspapers Publishing and Printing	Inorganics, VOCs, Semi volatiles	Recycle chemicals where possible. Discharge to POTW	40 CFR 459 and State or federal Storm water pollution prevention regulations
7948	Racing, Including Track Operation	NA	Discharge to POTW. Minimize use of lawn chemicals. Use good erosion control practices	NA
5012	Recreational vehicle sales and repair	Inorganics	Discharge to a POTW. Store oils and lubricants properly	NA
5561	Recreational vehicle sales and repair	Inorganics	Discharge to a POTW. Store oils and lubricants properly	Discharge to a POTW. Store oils and lubricants properly
7699	Repair Services, Nec	inorganics	Discharge to POTW	NA

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**
Diversion Id's: **007, 013**
Status: **Accepted**
Submit Date: **2002-10-28 16:51:14**

Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

Assessment Analysis

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**

Ground Water Multiple Wells Analysis

A – Microbiological **B** – Inorganic Compounds
B* – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

No.	Question	Response	A	B	B*	C	C*	D
1	Is any well under the influence of surface water?	No	0	0	0	0	0	0
2	Do all PWS wells meet KS PWS water well construction standards?	Yes	0	0	0	0	0	0
3	Is any well less than 30 feet deep?	No	0	0	0	0	0	0
4	Is gravel pack within 20 feet of any well surface?	No	0	0	0	0	0	0
5	Does a PWS own or control all the areas around the wells?	No	1	1	1	1	1	1
6	Does Zone B consist entirely of native grass?	No	2	2	2	2	2	2
7	Is there a contaminated well in Zone B?	No	0	0	0	0	0	0
8	Is a class V UIC well present?	No	0	0	0	0	0	0
9	Are any commercial, industrial, or urban areas present in Zone B?	Yes	1	1	1	1	1	1
10	Does each industrial/commercial site and urban area have a water quality protection plan in place?	No	1	1	1	1	1	1
11	Are any non-farm home sites present in Zone B?	No	0	0	0	0	0	0
12	Do all the non-farm home sites have a water quality protection plan?	Yes	0	0	0	0	0	0
13	Are any farmsteads present in Zone B?	No	0	0	0	0	0	0
14	Do all farmsteads have a water quality protection plan?	Yes	0	0	0	0	0	0
15	Is there grazing livestock in Zone B?	No	0	0	0	0	0	0
16	Have all livestock producers implemented water quality protection measures?	Yes	0	0	0	0	0	0
17	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0

No.	Question	Response	A	B	B*	C	C*	D
18	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
19	Is there corn or grain sorghum production in Zone B?	No	0	0	0	0	0	0
20	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
21	Are any orchards present in Zone B?	No	0	0	0	0	0	0
22	Are orchard nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
23	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	No	0	0	0	0	0	0
24	Is there a railroad or major highway in Zone B or C?	Yes	0	1	1	1	1	1
25	Is there oil production in Zone B or C?	Yes	0	1	0	1	0	1
26	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
27	Is an irrigation well located in Zone B or C?	No	0	0	0	0	0	0
28	Is a wastewater treatment facility in Zone B or C?	Yes	1	1	1	1	1	1
29	Is a solid waste landfill in Zone B or C?	No	0	0	0	0	0	0
30	Are there unplugged, abandoned water wells present in Zone C?	Yes	2	1	1	1	1	1
31	Are any commercial, industrial, or urban area present in Zone C?	Yes	1	1	1	1	1	1
32	Does each industrial/commercial site and urban area have a water quality protection plan in place?	No	1	1	1	1	1	1
33	Is there livestock confinement in Zone C?	Yes	1	1	1	1	1	0
34	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
35	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
36	Are cropland nutrient management plans in place?	Yes	0	0	0	0	0	0
37	Are cropland pesticide management plans in place?	Yes	0	0	0	0	0	0
38	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
39	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**
Diversion Id's: **007, 013**
Status: **Accepted**
Submit Date: **2002-10-28 16:51:14**

Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**

Comments for Unregulated Sites

Did Not Receive Any Comments

Comments for Regulated Confined Animal Feeding Operations Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Stroberg Land Cattle	2001331	This cattle livestock facility has no water quality protection plans.	Nicole Fisher

Comments for Regulated Hazardous Waste Sites

Did Not Receive Any Comments

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Bridgeman Oil (zip Trip)	3000770	The site is currently being monitored from a gasoline leak in 1990. No PWS or domestic wells were within .25 miles downgradient of contamination.	Nicole Fisher

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Coleman American Moving	3001779	The site is closed from a gasoline leak in 1992. No contamination was detected in the groundwater.	Nicole Fisher
Erickson, Schofield	3001000	The site is closed from a waste oil spill in 1993. The soil was stained but no groundwater contamination was suspected.	Nicole Fisher
Fina #9479 (t E Oil #17)	3000888	The site is currently being monitored from a gasoline and diesel spill in 1993. Groundwater contamination was confirmed. PWS and domestic water supplies were .25 miles downgradient of the contamination site.	Nicole Fisher
General Store Of Westborough	3002123	The site is currently being monitored from a gasoline spill in 1994. Groundwater contamination suspected.	Nicole Fisher
Harold's Car Care Wash, Former	3001790	The site is closed from a gasoline leak in 1999. No contamination was detected in the groundwater.	Nicole Fisher
Highway Oil #743	3000834	The site is closed from an estimated gasoline leak of 2000 gallons in 1985. The tank was removed and contamination was estimated to be 200 yards wide. Groundwater contamination was confirmed.	Nicole Fisher
Kwik Shop #764	3000636	The site is closed from a gasoline leak in 1998. No groundwater contamination was suspected.	Nicole Fisher
Mel Turner Motors	3000948	The site is closed from an oil leak in 1994. No groundwater contamination was suspected.	Nicole Fisher
Mid America Maintenance, Hutchinson	3001066	The site is closed from a gasoline leak in 1991. No contamination was detected in the groundwater. The tank was removed.	Nicole Fisher
Phillips 66	3000075	The site is currently being monitored from a gasoline contamination in 1990. PWS and domestic water wells were within .25 miles downgradient of contamination.	Nicole Fisher
Pic Quik #7	3000663	The site is currently being monitored from a gasoline leak in 1995. There are several domestic water supplies within .25 miles downgradient of the contamination.	Nicole Fisher
Reger Rental Sales	3001170	The site is closed from a diesel spill in 1990. No groundwater contamination was suspected.	Nicole Fisher
Reno Co Emergency Preparedness	3000039	The site is closed from a fuel oil leak in 1996. No odors were present during the tank removal and no groundwater contamination was suspected.	Nicole Fisher

Comments for Regulated Leaking Storage Tank Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Safelight Autoglass	3002007	The site is closed from a 1989 spill. No groundwater contamination was suspected.	Nicole Fisher
T E Oil #16	3000889	The site is currently being monitored from a gasoline and diesel leak in 1993. Groundwater contamination was confirmed. PWS was .25 miles downgradient of the contamination site.	Nicole Fisher
Town Country #70	3000053	The site is currently being monitored from a gasoline leak in 1993. Groundwater contamination was confirmed. PWS was .25 miles downgradient of contamination site.	Nicole Fisher
Town Country #76	3001995	The site is closed from a gasoline leak in 1993. Groundwater contamination was detected. No PWS were within .25 miles of contamination.	Nicole Fisher
Us Postal Serv, Hutchinson	3001374	The site is closed from a gasoline spill in 1991. Groundwater contamination was detected and a monitoring well was placed downgradient of the contamination.	Nicole Fisher
Vickers #2171	3000582	The site is currently being monitored from a gasoline contamination in 1987. Five monitoring wells were established to detect contamination in groundwater.	Nicole Fisher
Whithorn Service Center	3001252	The site is active from gasoline contamination in 2000. PWS and domestic water wells are within .25 miles of contamination.	Nicole Fisher

Comments for Regulated Identified Contaminated Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
FMGP – HUTCHINSON	7000186	The site is currently being monitored from a benzene and fuel oil leak from 1996 from an aboveground tank. Groundwater and soil contamination were confirmed; remediation is on-going. For more information please contact: John Cook (785) 296-8986	Nicole Fisher
HUTCHINSON NEWS	7000181	The site is closed from a carbon tetrachloride leak. The PWS #10 is directly down gradient of the contamination and the groundwater was monitored.	Nicole Fisher
SAYLOR CLEANERS	7000189	This site was contaminated with tetrachloroethylene in 1997 from a local dry cleaner company. Groundwater contamination was confirmed and the site was placed under annual monitoring. For more information please contact: Robert Jurgens (785)	Nicole Fisher

		291–3250	
--	--	----------	--

Comments for Regulated Solid Waste Sites

Did Not Receive Any Comments

Comments for Regulated Waste Water Sites

Did Not Receive Any Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**
Diversion Id's: **007, 013**
Status: **Accepted**
Submit Date: **2002-10-28 16:51:14**

Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

Added Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**

Comments for Added Contaminant Sites

Added Contaminant Site Name	Site No.	Site Comments	Author
Salvage Yard	9000179	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
pipelines	9000176	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
private dump	9000177	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**
Diversion Id's: **007, 013**
Status: **Accepted**
Submit Date: **2002-10-28 16:51:14**

Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

Analysis Question Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **104**

Comments for Analysis Questions

Analysis Question	Question Comments	Author
Did Not Receive Any Comments		

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**
Diversion Id's: **020**
Status: **Accepted**
Submit Date: **2002-11-14 12:34:33**

Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

Executive Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**

Susceptibility Likelihood Scores for Assessment Area

Contaminant Category	A	B	B*	C	C*	D
Susceptibility Likelihood Score – SLS	54	42	51	44	45	42
SLS Range	Mid	Low	Low	Low	Low	Low

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Susceptibility Likelihood Range

SLS Range	
0–50	Low Susceptibility
51–80	Moderate Susceptibility
81–100	High Susceptibility

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**
Diversion Id's: **020**
Status: **Accepted**
Submit Date: **2002-11-14 12:34:33**

Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100-foot radius around a groundwater well and a 1000-foot radius around a surface water intake. Zone B is a 2000-foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2-mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

Potential Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
202144	Plastics products Manufacturing	3089	B
202135	Nonresidential Construction	1542	C
202136	Sporting and Recreational Camps	7032	C

Regulated Confined Animal Feeding Operations Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
2001331	Stroberg Land Cattle	A-ARRN-BA09	C

Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Leaking Storage Tank Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Identified Contaminated Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Solid Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Waste Water Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
6001133	WILLOWBROOK, CITY OF	M-AR95-OO01	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**
Diversion Id's: **020**
Status: **Accepted**
Submit Date: **2002-11-14 12:34:33**

Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

Added Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**

Added Potential Site Sources

Source No.	Source Name	SIC ID	Zone
9000182	dryland cropland	111	B
9000178	Airstrip	4582	B
9000176	pipelines	4600	B
9000179	Salvage Yard	10015	C
9001614	Groundwater Pit	10079	C
9001615	Groundwater pit	10079	C
9000177	private dump	10090	C
9000180	dryland cropland	111	C
9000181	dryland cropland	111	C
9000203	Golf Course	7992	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**
Diversion Id's: **020**
Status: **Accepted**
Submit Date: **2002-11-14 12:34:33**

Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number of sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

Potential Contaminants Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**

Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
0	0	1	0	1	0

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**
Diversion Id's: **020**
Status: **Accepted**
Submit Date: **2002-11-14 12:34:33**

Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiological **B** – Inorganic Compounds **B1** – Eutrophication – Phosphorous
B2 – Sedimentation **B*** – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

Potential Contaminants Listing

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**

Unregulated Identified Site Sources and associated Potential Contaminant Category

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
1542	Nonresidential Construction	Sedimentation	B2
3089	Plastics products Manufacturing	inorganics, VOCs	B
"	"	"	D

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**
Diversion Id's: **020**
Status: **Accepted**
Submit Date: **2002-11-14 12:34:33**

Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

Protection Measures

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
1542	Nonresidential Construction	Sedimentation	Erosion and Sediment Control	KAR 28-16, KDHE
3089	Plastics products Manufacturing	inorganics, VOCs	Pre-treat wastewater prior to discharge. Minimize outdoor storage and control storm water runoff.	40 CFR 463 and State or federal Storm water pollution prevention regulations
7032	Sporting and Recreational Camps	sanitary, fertilizers, pesticides	Discharge to POTW. Minimize use of lawn chemicals	KAR 28-5

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**
Diversion Id's: **020**
Status: **Accepted**
Submit Date: **2002-11-14 12:34:33**

Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

Assessment Analysis

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**

Ground Water Single Well Analysis

A – Microbiological **B** – Inorganic Compounds
B* – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

No.	Question	Response	A	B	B*	C	C*	D
1	Is the well under the influence of surface water?	No	0	0	0	0	0	0
2	Does the well meet KS water well construction standards?	Yes	0	0	0	0	0	0
3	Is the depth of the well less than 30 feet?	No	0	0	0	0	0	0
4	Are there unplugged, abandoned water wells present in Zone A?	No	0	0	0	0	0	0
5	Is there gravel pack within 20 feet of the surface?	No	0	0	0	0	0	0
6	Does a PWS own or control Zone A?	Yes	0	0	0	0	0	0
7	Does Zone A consist entirely of native grass?	No	1	1	1	1	1	1
8	Is there a contaminated well in the Zone A?	No	0	0	0	0	0	0
9	Is a class V UIC well present?	No	0	0	0	0	0	0
10	Are any commercial, industrial, or urban areas present in Zone B?	No	0	0	0	0	0	0
11	Does each industrial/commercial site and urban area have a water quality protection plan in place?	Yes	0	0	0	0	0	0
12	Are any non-farm home sites present in Zone B?	Yes	1	0	1	0	1	0
13	Do all the non-farm home sites have a water quality protection plan?	No	1	0	1	0	1	0
14	Are any farmsteads present in Zone B?	Yes	1	1	1	1	1	1
15	Do all farmsteads have a water quality protection plan?	No	1	1	1	1	1	1
16	Does Zone B consist entirely of native grass?	No	1	1	1	1	1	1
17	Is there grazing livestock in Zone B?	Yes	1	0	1	0	0	0

No.	Question	Response	A	B	B*	C	C*	D
18	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
19	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0
20	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
21	Is there corn or grain sorghum production in Zone B?	Yes	0	0	1	0	1	0
22	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	No	0	0	1	0	1	0
23	Are any orchards present in Zone B?	No	0	0	0	0	0	0
24	Are orchard nutrient and pesticide plans in use for each site?	Yes	0	0	0	0	0	0
25	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	Yes	1	1	1	0	0	0
26	Is there a railroad or major highway in Zone B or C?	No	0	0	0	0	0	0
27	Is there oil production in Zone B or C?	No	0	0	0	0	0	0
28	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
29	Is an irrigation well located in Zone B or C?	Yes	0	1	1	1	1	1
30	Is a wastewater treatment facility in Zone B or C?	Yes	1	1	1	1	1	1
31	Is a solid waste landfill in Zone B or C?	No	0	0	0	0	0	0
32	Are there unplugged, abandoned water wells present in Zone B or C?	Yes	1	0	0	0	0	0
33	Are any commercial, industrial, or urban areas present in Zone C?	Yes	1	1	1	1	1	1
34	Are water quality protection plans in use for each site/area?	No	1	1	1	1	1	1
35	Is there livestock confinement in Zone C?	Yes	1	1	1	1	1	0
36	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
37	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
38	Are cropland nutrient management plans in place?	Yes	0	0	0	0	0	0
39	Are cropland pesticide management plans in place?	Yes	0	0	0	0	0	0
40	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
41	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**
Diversion Id's: **020**
Status: **Accepted**
Submit Date: **2002-11-14 12:34:33**

Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**

Comments for Unregulated Sites

Did Not Receive Any Comments

Comments for Regulated Confined Animal Feeding Operations Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Stroberg Land Cattle	2001331	This cattle livestock facility has no water quality protection plans.	Nicole Fisher

Comments for Regulated Hazardous Waste Sites

Did Not Receive Any Comments

Comments for Regulated Leaking Storage Tank Sites

Did Not Receive Any Comments

Comments for Regulated Identified Contaminated Sites

Did Not Receive Any Comments

Comments for Regulated Solid Waste Sites

Did Not Receive Any Comments

Comments for Regulated Waste Water Sites

Did Not Receive Any Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**
Diversion Id's: **020**
Status: **Accepted**
Submit Date: **2002-11-14 12:34:33**

Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

Added Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**

Comments for Added Contaminant Sites

Added Contaminant Site Name	Site No.	Site Comments	Author
Airstrip	9000178	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
Golf Course	9000203	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
Groundwater Pit	9001614	Large Groundwater pit that poses a direct contamination route to the groundwater	Peggy Holloway
Groundwater pit	9001615	Large Groundwater pit that poses a direct contamination route to the groundwater	Peggy Holloway
Salvage Yard	9000179	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000180	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000181	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000182	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
pipelines	9000176	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
private dump	9000177	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**
Diversion Id's: **020**
Status: **Accepted**
Submit Date: **2002-11-14 12:34:33**

Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

Analysis Question Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **105**

Comments for Analysis Questions

Analysis Question	Question Comments	Author
Did Not Receive Any Comments		

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**
Diversion Id's: **022**
Status: **Accepted**
Submit Date: **2002-10-31 13:15:17**

Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

Executive Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**

Susceptibility Likelihood Scores for Assessment Area

Contaminant Category	A	B	B*	C	C*	D
Susceptibility Likelihood Score – SLS	41	32	40	32	36	34
SLS Range	Low	Low	Low	Low	Low	Low

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Susceptibility Likelihood Range

SLS Range	
0–50	Low Susceptibility
51–80	Moderate Susceptibility
81–100	High Susceptibility

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**
Diversion Id's: **022**
Status: **Accepted**
Submit Date: **2002-10-31 13:15:17**

Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100-foot radius around a groundwater well and a 1000-foot radius around a surface water intake. Zone B is a 2000-foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2-mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

Potential Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
202135	Nonresidential Construction	1542	C
202142	Nonresidential Construction	1542	C
202144	Plastics products Manufacturing	3089	C
202136	Sporting and Recreational Camps	7032	C

Regulated Confined Animal Feeding Operations Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Leaking Storage Tank Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Identified Contaminated Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Solid Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Waste Water Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**
Diversion Id's: **022**
Status: **Accepted**
Submit Date: **2002-10-31 13:15:17**

Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

Added Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**

Added Potential Site Sources

Source No.	Source Name	SIC ID	Zone
9000182	dryland cropland	111	B
9000178	Airstrip	4582	B
9001615	Groundwater pit	10079	C
9000180	dryland cropland	111	C
9000181	dryland cropland	111	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**
Diversion Id's: **022**
Status: **Accepted**
Submit Date: **2002-10-31 13:15:17**

Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number of sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

Potential Contaminants Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**

Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
0	0	1	0	1	0

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**
Diversion Id's: **022**
Status: **Accepted**
Submit Date: **2002-10-31 13:15:17**

Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiological	B – Inorganic Compounds	B1 – Eutrophication – Phosphorous
B2 – Sedimentation	B* – Nitrates	C – Synthetic Organic Compounds
C* – Pesticides	D – Volatile Organic Compounds	

Potential Contaminants Listing

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**

Unregulated Identified Site Sources and associated Potential Contaminant Category

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
1542	Nonresidential Construction	Sedimentation	B2
3089	Plastics products Manufacturing	inorganics, VOCs	B
"	"	"	D

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**
Diversion Id's: **022**
Status: **Accepted**
Submit Date: **2002-10-31 13:15:17**

Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

Protection Measures

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
1542	Nonresidential Construction	Sedimentation	Erosion and Sediment Control	KAR 28–16, KDHE
3089	Plastics products Manufacturing	inorganics, VOCs	Pre–treat wastewater prior to discharge. Minimize outdoor storage and control storm water runoff.	40 CFR 463 and State or federal Storm water pollution prevention regulations
7032	Sporting and Recreational Camps	sanitary, fertilizers, pesticides	Discharge to POTW. Minimize use of lawn chemicals	KAR 28–5

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**
Diversion Id's: **022**
Status: **Accepted**
Submit Date: **2002-10-31 13:15:17**

Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

Assessment Analysis

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**

Ground Water Single Well Analysis

A – Microbiological **B** – Inorganic Compounds
B* – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

No.	Question	Response	A	B	B*	C	C*	D
1	Is the well under the influence of surface water?	No	0	0	0	0	0	0
2	Does the well meet KS water well construction standards?	Yes	0	0	0	0	0	0
3	Is the depth of the well less than 30 feet?	No	0	0	0	0	0	0
4	Are there unplugged, abandoned water wells present in Zone A?	No	0	0	0	0	0	0
5	Is there gravel pack within 20 feet of the surface?	No	0	0	0	0	0	0
6	Does a PWS own or control Zone A?	Yes	0	0	0	0	0	0
7	Does Zone A consist entirely of native grass?	Yes	0	0	0	0	0	0
8	Is there a contaminated well in the Zone A?	No	0	0	0	0	0	0
9	Is a class V UIC well present?	No	0	0	0	0	0	0
10	Are any commercial, industrial, or urban areas present in Zone B?	No	0	0	0	0	0	0
11	Does each industrial/commercial site and urban area have a water quality protection plan in place?	Yes	0	0	0	0	0	0
12	Are any non-farm home sites present in Zone B?	Yes	1	0	1	0	1	0
13	Do all the non-farm home sites have a water quality protection plan?	No	1	0	1	0	1	0
14	Are any farmsteads present in Zone B?	Yes	1	1	1	1	1	1
15	Do all farmsteads have a water quality protection plan?	No	1	1	1	1	1	1
16	Does Zone B consist entirely of native grass?	No	1	1	1	1	1	1
17	Is there grazing livestock in Zone B?	Yes	1	0	1	0	0	0

No.	Question	Response	A	B	B*	C	C*	D
18	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
19	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0
20	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
21	Is there corn or grain sorghum production in Zone B?	Yes	0	0	1	0	1	0
22	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	No	0	0	1	0	1	0
23	Are any orchards present in Zone B?	No	0	0	0	0	0	0
24	Are orchard nutrient and pesticide plans in use for each site?	Yes	0	0	0	0	0	0
25	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	Yes	1	1	1	0	0	0
26	Is there a railroad or major highway in Zone B or C?	No	0	0	0	0	0	0
27	Is there oil production in Zone B or C?	No	0	0	0	0	0	0
28	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
29	Is an irrigation well located in Zone B or C?	Yes	0	1	1	1	1	1
30	Is a wastewater treatment facility in Zone B or C?	No	0	0	0	0	0	0
31	Is a solid waste landfill in Zone B or C?	No	0	0	0	0	0	0
32	Are there unplugged, abandoned water wells present in Zone B or C?	Yes	1	0	0	0	0	0
33	Are any commercial, industrial, or urban areas present in Zone C?	Yes	1	1	1	1	1	1
34	Are water quality protection plans in use for each site/area?	No	1	1	1	1	1	1
35	Is there livestock confinement in Zone C?	No	0	0	0	0	0	0
36	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
37	Do all the livestock producers have water quality protection measures in place?	Yes	0	0	0	0	0	0
38	Are cropland nutrient management plans in place?	Yes	0	0	0	0	0	0
39	Are cropland pesticide management plans in place?	Yes	0	0	0	0	0	0
40	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
41	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**
Diversion Id's: **022**
Status: **Accepted**
Submit Date: **2002-10-31 13:15:17**

Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**

Comments for Unregulated Sites

Did Not Receive Any Comments

Comments for Regulated Confined Animal Feeding Operations Sites

Did Not Receive Any Comments

Comments for Regulated Hazardous Waste Sites

Did Not Receive Any Comments

Comments for Regulated Leaking Storage Tank Sites

Did Not Receive Any Comments

Comments for Regulated Identified Contaminated Sites

Did Not Receive Any Comments

Comments for Regulated Solid Waste Sites

Did Not Receive Any Comments

Comments for Regulated Waste Water Sites

Did Not Receive Any Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**
Diversion Id's: **022**
Status: **Accepted**
Submit Date: **2002-10-31 13:15:17**

Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

Added Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**

Comments for Added Contaminant Sites

Added Contaminant Site Name	Site No.	Site Comments	Author
Airstrip	9000178	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
Groundwater pit	9001615	Large Groundwater pit that poses a direct contamination route to the groundwater	Peggy Holloway
dryland cropland	9000180	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000181	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000182	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**
Diversion Id's: **022**
Status: **Accepted**
Submit Date: **2002-10-31 13:15:17**

Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

Analysis Question Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **106**

Comments for Analysis Questions

Analysis Question	Question Comments	Author
Did Not Receive Any Comments		

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002-10-31 13:19:29**

Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

Executive Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**

Susceptibility Likelihood Scores for Assessment Area

Contaminant Category	A	B	B*	C	C*	D
Susceptibility Likelihood Score – SLS	50	42	48	44	42	42
SLS Range	Low	Low	Low	Low	Low	Low

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Susceptibility Likelihood Range

SLS Range	
0–50	Low Susceptibility
51–80	Moderate Susceptibility
81–100	High Susceptibility

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002-10-31 13:19:29**

Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100-foot radius around a groundwater well and a 1000-foot radius around a surface water intake. Zone B is a 2000-foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2-mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

Potential Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**

Unregulated Potential Site Sources

Source No.	SIC Description	SIC ID	Zone
202135	Nonresidential Construction	1542	C
202142	Nonresidential Construction	1542	C
202144	Plastics products Manufacturing	3089	C

Regulated Confined Animal Feeding Operations Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
2001331	Stroberg Land Cattle	A-ARRN-BA09	C

Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Leaking Storage Tank Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Identified Contaminated Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Solid Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

Regulated Waste Water Potential Site Sources

Source No.	Source Name	ID/Permit No.	Zone
6000550	WESLEY TOWERS	I-AR49-CO17	C
6001060	RENO COUNTY COMBINED S.D. #3 AND #10	M-AR49-ND03	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002-10-31 13:19:29**

Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

Added Sources

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**

Added Potential Site Sources

Source No.	Source Name	SIC ID	Zone
9000182	dryland cropland	111	B
9000178	Airstrip	4582	B
9000176	pipelines	4600	B
9000179	Salvage Yard	10015	C
9000180	dryland cropland	111	C
9000181	dryland cropland	111	C

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002-10-31 13:19:29**

Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number of sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

Potential Contaminants Summary

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**

Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
0	0	1	0	1	0

A – Microbiological

B* – Nitrates

C* – Pesticides

B – Inorganic Compounds

C – Synthetic Organic Compounds

D – Volatile Organic Compounds

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002-10-31 13:19:29**

Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiological **B** – Inorganic Compounds **B1** – Eutrophication – Phosphorous
B2 – Sedimentation **B*** – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

Potential Contaminants Listing

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**

Unregulated Identified Site Sources and associated Potential Contaminant Category

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
1542	Nonresidential Construction	Sedimentation	B2
3089	Plastics products Manufacturing	inorganics, VOCs	B
"	"	"	D

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002-10-31 13:19:29**

Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

Protection Measures

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**

Recommended Water Quality Protection Measures

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
1542	Nonresidential Construction	Sedimentation	Erosion and Sediment Control	KAR 28-16, KDHE
3089	Plastics products Manufacturing	inorganics, VOCs	Pre-treat wastewater prior to discharge. Minimize outdoor storage and control storm water runoff.	40 CFR 463 and State or federal Storm water pollution prevention regulations

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002-10-31 13:19:29**

Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

Assessment Analysis

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**

Ground Water Single Well Analysis

A – Microbiological **B** – Inorganic Compounds
B* – Nitrates **C** – Synthetic Organic Compounds
C* – Pesticides **D** – Volatile Organic Compounds

No.	Question	Response	A	B	B*	C	C*	D
1	Is the well under the influence of surface water?	No	0	0	0	0	0	0
2	Does the well meet KS water well construction standards?	Yes	0	0	0	0	0	0
3	Is the depth of the well less than 30 feet?	No	0	0	0	0	0	0
4	Are there unplugged, abandoned water wells present in Zone A?	No	0	0	0	0	0	0
5	Is there gravel pack within 20 feet of the surface?	No	0	0	0	0	0	0
6	Does a PWS own or control Zone A?	Yes	0	0	0	0	0	0
7	Does Zone A consist entirely of native grass?	Yes	0	0	0	0	0	0
8	Is there a contaminated well in the Zone A?	No	0	0	0	0	0	0
9	Is a class V UIC well present?	No	0	0	0	0	0	0
10	Are any commercial, industrial, or urban areas present in Zone B?	No	0	0	0	0	0	0
11	Does each industrial/commercial site and urban area have a water quality protection plan in place?	Yes	0	0	0	0	0	0
12	Are any non-farm home sites present in Zone B?	Yes	1	0	1	0	1	0
13	Do all the non-farm home sites have a water quality protection plan?	No	1	0	1	0	1	0
14	Are any farmsteads present in Zone B?	Yes	1	1	1	1	1	1
15	Do all farmsteads have a water quality protection plan?	No	1	1	1	1	1	1
16	Does Zone B consist entirely of native grass?	No	1	1	1	1	1	1
17	Is there grazing livestock in Zone B?	Yes	1	0	1	0	0	0

No.	Question	Response	A	B	B*	C	C*	D
18	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
19	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0
20	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
21	Is there corn or grain sorghum production in Zone B?	Yes	0	0	1	0	1	0
22	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	No	0	0	1	0	1	0
23	Are any orchards present in Zone B?	No	0	0	0	0	0	0
24	Are orchard nutrient and pesticide plans in use for each site?	Yes	0	0	0	0	0	0
25	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	Yes	1	1	1	0	0	0
26	Is there a railroad or major highway in Zone B or C?	No	0	0	0	0	0	0
27	Is there oil production in Zone B or C?	Yes	0	1	0	1	0	1
28	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
29	Is an irrigation well located in Zone B or C?	Yes	0	1	1	1	1	1
30	Is a wastewater treatment facility in Zone B or C?	Yes	1	1	1	1	1	1
31	Is a solid waste landfill in Zone B or C?	No	0	0	0	0	0	0
32	Are there unplugged, abandoned water wells present in Zone B or C?	Yes	1	0	0	0	0	0
33	Are any commercial, industrial, or urban areas present in Zone C?	Yes	1	1	1	1	1	1
34	Are water quality protection plans in use for each site/area?	No	1	1	1	1	1	1
35	Is there livestock confinement in Zone C?	Yes	1	1	1	1	1	0
36	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
37	Do all the livestock producers have water quality protection measures in place?	No	1	0	1	0	0	0
38	Are cropland nutrient management plans in place?	Yes	0	0	0	0	0	0
39	Are cropland pesticide management plans in place?	Yes	0	0	0	0	0	0
40	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
41	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002-10-31 13:19:29**

Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**

Comments for Unregulated Sites

Did Not Receive Any Comments

Comments for Regulated Confined Animal Feeding Operations Sites

Potential Contaminant Site Name	Site No.	Site Comments	Author
Stroberg Land Cattle	2001331	This cattle livestock facility has no water quality protection plans.	Nicole Fisher

Comments for Regulated Hazardous Waste Sites

Did Not Receive Any Comments

Comments for Regulated Leaking Storage Tank Sites

Did Not Receive Any Comments

Comments for Regulated Identified Contaminated Sites

Did Not Receive Any Comments

Comments for Regulated Solid Waste Sites

Did Not Receive Any Comments

Comments for Regulated Waste Water Sites

Did Not Receive Any Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002-10-31 13:19:29**

Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

Added Site Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**

Comments for Added Contaminant Sites

Added Contaminant Site Name	Site No.	Site Comments	Author
Airstrip	9000178	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
Salvage Yard	9000179	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000180	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000181	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
dryland cropland	9000182	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
pipelines	9000176	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002-10-31 13:19:29**

Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

Analysis Question Comments

Public Water Supply: **HUTCHINSON, CITY OF**
Assessment Area: **107**

Comments for Analysis Questions

Analysis Question	Question Comments	Author
Did Not Receive Any Comments		